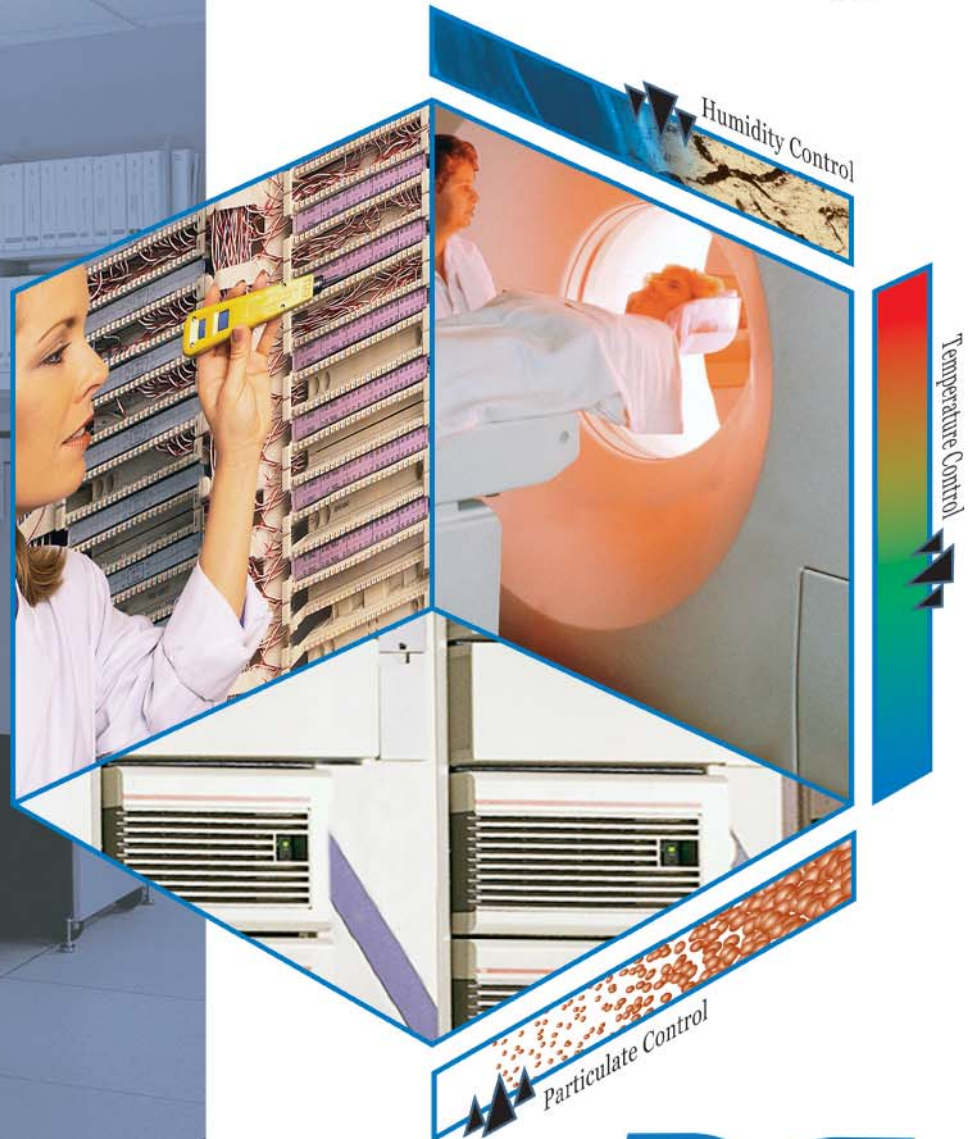


Data Aire

LCSTTM (Large Ceiling System)

6, 8, 10, and 13 ton



DAI[®]
DATA AIRE INC.

ISO 9001 Certified



LCS™
(LARGE CEILING SYSTEMS)

Product Description
Performance and Electrical Data
Dimensional Data
Guide Specifications



... 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!

PRECISION COOLING

LCS is a precision environmental control systems that bring a standard of reliable performance required by today’s market demands; Small and medium size data centers, telecommunication sites, or where floor space is not available and larger tonnage units are required. Designed for ducted above ceiling applications, the LCS may be ordered as an air or water/glycol cooled direct expansion unit with single or dual compressors. Chilled water units are also available. Each LCS unit is factory run tested and put through a rigorous quality control procedure.

COMFORT

Computer rooms, telecommunication sites, and other environmentally controlled spaces require air which is clean and properly distributed, with precisely controlled temperature and humidity. Building or “people comfort” systems are not designed to meet these demands. LCS is designed to meet these goals.

CONTROL

The heart of the LCS is the *Mini Data Alarm Processor-II™*, a microprocessor based controller designed for precision environmental control. The *Mini Data Alarm Processor-II* not only controls and monitors temperature, humidity, airflow, and cleanliness, it provides alarm history and automatic self-tests. All information is provided on a liquid crystal display (LCD).

DATA AIRE DELIVERS

Engineered for high performance and reliability, each LCS comes with Data Aire’s commitment to excellence. This commitment began with Data Aire’s first process cooling unit and has continued for more than 30 years of building the industry’s finest precision control equipment. Standard ship cycle is 30 days from date of order. With Data Aire’s optional “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.

TABLE OF CONTENTS

Design Features.....	6
Control System	8
Options	10
Model Identification.....	11
Performance Data	
Air Cooled.....	12
Water/Glycol Cooled	36
Chilled water.....	52
Dimensional and Weight data.....	58
Dimensional and Component drawings.....	60
Guide Specifications	71

DESIGN FEATURES



CABINET

The heliarc welded tubular steel frame provides maximum strength and ease of service access. Removable panels of galvanized steel are insulated with 1 inch thick, 1-1/2 pound density insulation for thermal protection and sound attenuation. All parts are easily accessible. The electrical panel is hinged and swings out for servicing.

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 air flow capability to match load requirements of the controlled space. The draw through design insures even air distribution across the coil and bypass, low internal cabinet 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 pleated design, 30% efficient filters (based on ASHRAE Std. 52.1-1992). The filter section is an integral part of the system and is accessible from either side.

REHEAT

Two stage electric reheat is standard. Low-watt density finned tubular sheathed coils are constructed of stainless steel and sized to maintain room dry bulb conditions during a call for dehumidification. Low-watt density coils eliminate ionization associated with open air electric resistance heating.

REFRIGERATION CIRCUIT

LCS is available with either a single or dual refrigeration circuit. The refrigeration circuit includes a hermetic scroll 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 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 heat rejection and ambient conditions as required. The industrial duty design includes galvanized 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 motor for proper control down to -20° F ambient temperatures. Additional fan motors are controlled with ambient thermostats.

Air Cooled with Outdoor Condensing Unit - When compressors are required to be out of the controlled space, LCS is available with a remote outdoor condensing unit. The condensing unit includes hermetic scroll compressor(s) 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 galvanized steel with vertical air discharge. The condenser fan motor is variable speed type for head pressure control down to -20° F ambient temperatures. Additional fan motors are controlled by ambient fan thermostats.

Water/Glycol Cooled with Remote Outdoor Dry Cooler - Remote outdoor dry coolers are available in a variety of sizes. Each dry cooler includes galvanized corrosion resistant housing, aluminum finned copper tube coil, coated fan guards, surge tank, pump contactor, and energy efficient thermally protected direct drive motors. Dry coolers with multiple motors have cycling control.

CHILLED WATER SYSTEMS

Chilled water systems include all the same features of the LCS 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 chilled water valve for accurate and economical temperature control and dehumidification.

CONTROL SYSTEM

Unit control is maintained with the microprocessor based *Mini Data Alarm Processor-II™*. The *Mini Data Alarm Processor-II* is a wall mounted, one row, 16 character control that not only monitors the controlled environment's humidity, air flow, and cleanliness, but also provides alarm history and an automatic self-test of the microprocessor on system start-up. Multiple messages are displayed by automatically scrolling from each message to the next. All messages are presented in a clear vernacular format on the liquid crystal display (LCD). Multiple alarms are displayed sequentially in order of occurrence.

OPERATION - A slide switch allows unit ON/OFF operation: push buttons allow menu selection for programming, operational information, diagnostics, and historical data. The two-level password feature prevents unauthorized access. Menu programmed information for basic system operation and alarm parameters is nonvolatile.

PROGRAMMABLE FUNCTIONS - The user friendly MENU and SELECT push buttons permit step-by-step programming of the following selections:

Temperature setpoint 65-85° F/18.3-29.4° C	Humidity setpoint 30-70% RH
Temperature deadband ±1-5° F/C in 0.1° increments	Humidity deadband ±1-15% RH in 0.1% increments
Temperature alarm points	Humidity alarm points
Calibrate temperature sensor	Calibrate humidity sensor
Unit start time delay	Interstage time delay
Password - 1st level	Password 2nd level
Audio alarm level	Restart mode
Firestat trip temperature	Local alarm

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

Temperature setpoints	Humidity setpoint
Current temperature	Current humidity
Cooling 1, 2 (as applicable)	Reheat
Humidification	Dehumidification

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

High temperature warning	High humidity warning
Low temperature warning	Low humidity warning
Compressor high pressure	High condensate water
Firestat tripped	No air flow
Compressor short cycle	Low voltage warning
Temperature sensor failure	Humidity sensor failure

HISTORICAL DATA - Temperature and humidity, with the minimum and maximum readings since the last power on can be recalled and displayed. Alarm history is maintained in sequential order (up to 5 alarms).

DIAGNOSTICS - Automatic and manual diagnostics sequences simplify troubleshooting.

In addition, the Mini Data Alarm Processor-II has an inclusive seven-day programming format for unoccupied (low demand) periods. This secondary schedule can minimize equipment run times, reducing energy consumption, and provide user cost savings.

The following selections can be adjusted to match the requirements needed for unoccupied (low demand) periods.

Cooling setpoint for secondary schedule

Adjustment range: 1 - 30° F above the “occupied” temperature setpoint

Reheat setpoint for secondary schedule

Adjustment range: 1 - 30° F below the “occupied” temperature setpoint

Dehumidification setpoint for secondary schedule

Adjustment range: 1 - 30% RH above the “occupied” humidity setpoint

Humidification setpoint for secondary schedule

Adjustment range: 1 - 30% RH below the “occupied” humidity setpoint

Day schedule

Scheduling for each day of the week or any combination of days

“Unoccupied” adjusted setpoint operation

Adjusts to temperature and humidity setpoints to secondary schedule

“Unoccupied” ON/OFF operation

During “unoccupied” schedule:

cooling - off

heating - off

humidification - off

dehumidification - off

fan - off

Override request

Override secondary schedule

Adjustment range: 1 - 12 hours



Energy Saver Coil - An *Energy Saver Coil* can be provided integral to the unit matching the nominal capacity. *Energy Saver* cooling is available whenever the incoming water/glycol temperature is below the setpoint of the water sensing changeover thermostat. The water sensing changeover thermostat is factory set at 45° F/7.2° C. The water sensing changeover thermostat is field adjustable. The *Energy Saver* operates during a need for cooling. The *Energy Saver* valve will open at setpoint plus deadband. When the space temperature falls to setpoint, the valve will close and the space is considered satisfied. While in *Energy Saver* mode with the valve open, if the incoming water/glycol temperature rises 3° F above the setpoint (of the water sensing thermostat), the *Energy Saver* valve will close and DX (mechanical) cooling will begin. Option includes a 3-way pressure control valve on the condenser water circuit(s) and a 3-way valve for the economy coil. Common piping for the coil and condensers is provided.

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 option includes the next size motor. Separate piping is provided for the chilled water coil and refrigeration connections on air cooled units or water circuit(s) on water/glycol cooled units.

Unit Mounted Temperature and Humidity Sensors - Temperature and humidity sensors may be ordered for unit mounting in the return air.

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 exterior unit panel.

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

Hot Gas Reheat - The unit’s hot gas discharge may be used for reheat for maximum system efficiency.

Steam Generator Humidifier - Units may be 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. Available in 10 and 30 pound per hour capacities.

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

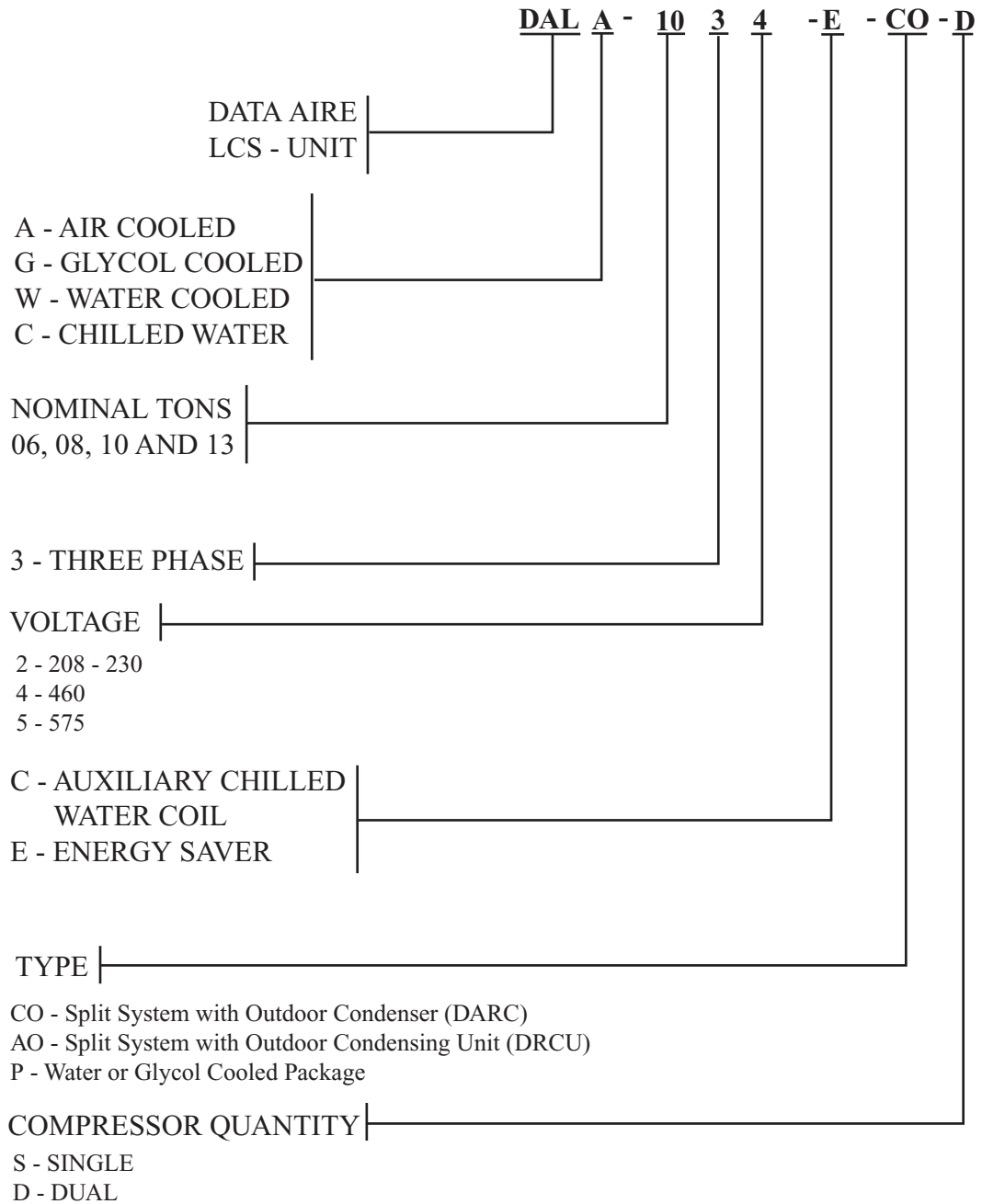
3-Way Water Regulating Valve - A 3-way water regulating valve for pressure control may be ordered to replace standard 2-way valve installed in the unit. The 3-way valve controls the water/glycol flow rate to maintain the required capacity under varying conditions.

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 GPM @ 20 foot maximum or 40 GPH @ 20 feet with check valve. Pumps shipped loose are available in 115, 230, or 460 volt.

Extended Compressor Warranty - An extended compressor warranty for a period of four (4) years is available in addition to the standard one (1) year warranty. The warranty is for replacement of compressors and does not include labor.

MODEL NUMBER IDENTIFICATION

LCS - (Large Ceiling System)



AIR COOLED: Performance data at STANDARD airflow - remote air cooled condenser - single compressor

MODEL NUMBER:	DALA-	06-CO-S	08-CO-S	10-CO-S	13-CO-S
CAPACITY in Btu/hr - gross					
80° DB/67° WB	Total	84,300	108,000	145,300	175,800
50% RH	Sensible	63,300	79,800	107,400	131,600
75° DB/62.5° WB	Total	76,400	99,300	134,100	161,900
50% RH	Sensible	61,700	78,400	105,800	129,300
75° DB/61° WB	Total	74,100	96,200	130,100	157,400
45% RH	Sensible	65,600	83,100	112,200	137,500
72° DB/60° WB	Total	73,000	94,700	127,500	154,300
50% RH	Sensible	60,500	76,800	103,500	126,600
72° DB/58.6° WB	Total	71,000	92,100	124,800	150,300
45% RH	Sensible	64,100	81,300	109,800	134,200

BLOWER SECTION

Airflow - CFM		2,500	3,000	4,000	5,000
Standard motor - horsepower		2	2	3	5
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)	0.9	1.3	1.4	1.1
Maximum E.S.P.	(Next Size Motor)	0.9	1.3	1.5	1.1
Next size motor - horsepower		3	3	5	7.5

COMPRESSORS

Type		Scroll	Scroll	Scroll	Scroll
Quantity		1	1	1	1
Refrigerant type		R-407C	R-407C	R-407C	R-407C

EVAPORATOR COIL

Face area - sq ft		12.2	12.2	12.2	12.2
Rows of coil		3	4	5	5
Face velocity - fpm		205	246	328	410

REHEAT SECTION

Electric		Standard	Standard	Standard	Standard
kW		15	15	15	15
Capacity - Btu/hr		51,225	51,225	51,225	51,225

HUMIDIFIER SECTION

Steam generator		Optional	Optional	Optional	Optional
kW		3.4	3.4	3.4	3.4
Capacity in lb/hr	(Adjustable)	10	10	10	10
kW		3.4-10.2	3.4-10.2	3.4-10.2	3.4-10.2
Capacity in lb/hr	(Adjustable)	10-30	10-30	10-30	10-30

AIR COOLED: Performance data at STANDARD airflow - remote air cooled condenser - single compressor

MODEL NUMBER: *DALA-* *06-CO-S* *08-CO-S* *10-CO-S* *13-CO-S*

ELECTRICAL SECTION

Next Size Motor

Electrical data based on: electric reheat - **YES**, 10 lb/hr steam generator humidifier - **YES**, and NEXT SIZE MOTOR.

208-230/3/60	FLA/MCA/MOP	69/84/90	79/97/110	94/114/125	103/123/150
460/3/60	FLA/MCA/MOP	33/41/45	38/46/50	43/52/60	51/61/70
575/3/60	FLA/MCA/MOP	26/31/35	29/36/40	36/44/50	41/49/60

Electrical data base on: electric reheat -**YES**, 30 lb/hr steam generator humidifier - **YES**, and NEXT SIZE MOTOR.

208-230/3/60	FLA/MCA/MOP	69/84/90	79/97/110	94/114/125	103/123/150
460/3/60	FLA/MCA/MOP	33/41/45	38/46/50	43/52/60	51/61/70
575/3/60	FLA/MCA/MOP	26/31/35	29/36/40	36/44/50	41/49/60

Electrical data based on: electric reheat - **NO**, 10 lb/hr steam generator humidifier - **YES**, and NEXT SIZE MOTOR.

208-230/3/60	FLA/MCA/MOP	43/52/60	54/65/80	69/82/110	77/92/125
460/3/60	FLA/MCA/MOP	22/26/30	26/32/40	31/37/50	39/47/60
575/3/60	FLA/MCA/MOP	17/20/25	20/24/30	27/32/45	32/38/50

Electrical data based on: electric reheat - **NO**, 30 lb/hr steam generator humidifier - **YES**, and NEXT SIZE MOTOR.

208-230/3/60	FLA/MCA/MOP	55/67/70	66/80/100	81/97/125	89/107/125
460/3/60	FLA/MCA/MOP	27/33/40	32/39/50	37/44/50	45/53/70
575/3/60	FLA/MCA/MOP	21/25/30	24/30/35	31/37/50	36/43/50

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

208-230/3/60	FLA/MCA/MOP	69/84/90	79/97/110	94/114/125	103/123/150
460/3/60	FLA/MCA/MOP	33/41/45	38/46/50	43/52/60	51/61/70
575/3/60	FLA/MCA/MOP	26/31/35	29/36/40	36/44/50	41/49/60

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

208-230/3/60	FLA/MCA/MOP	27/32/50	37/44/70	53/62/90	61/71/110
460/3/60	FLA/MCA/MOP	15/17/25	19/23/35	24/28/45	32/37/50
575/3/60	FLA/MCA/MOP	11/13/15	14/17/25	21/25/40	26/30/45

NEXT SIZE MOTOR

Horsepower		3	3	5	7.5
208-230/3/60	FLA	8.4	8.4	14.8	20.0
460/3/60	FLA	4.2	4.2	6.6	10.1
575/3/60	FLA	3.3	3.3	5.3	8.6

COMPRESSOR

208-230/3/60	FLA	18.6	28.8	37.8	41.0
460/3/60	FLA	10.3	14.7	17.2	21.8
575/3/60	FLA	7.4	10.8	15.5	17.3

AIR COOLED CONDENSER

Condenser selection at 95° F ambient	DARC-06	DARC-09	DARC-11	DARC-15
Condenser selection at 100° F ambient	DARC-07	DARC-11	DARC-15	DARC-17
Condenser selection at 105° F ambient	DARC-11	DARC-15	DARC-17	DARC-21

(Notes: Condensers are not available in 575 volts. Condensers are selected at sea level. Refer to page 64 for electrical data.)

FLA - Full load amps

MCA - Minimum circuit amps (wire sizing amps)

MOP - Maximum Rating of the Overcurrent Protective Device

AIR COOLED: Performance data at OPTIONAL airflow - remote air cooled condenser - single compressor

MODEL NUMBER:		DALA-	06-CO-S	08-CO-S	10-CO-S	13-CO-S
CAPACITY in Btu/hr - gross						
80° DB/67° WB	Total		86,000	112,200	149,300	178,000
50% RH	Sensible		69,800	88,700	118,300	138,500
75° DB/62.5° WB	Total		78,900	102,700	138,100	164,000
50% RH	Sensible		68,300	86,800	116,300	136,100
75° DB/61° WB	Total		76,400	99,600	134,000	159,500
45% RH	Sensible		72,900	92,500	124,000	145,000
72° DB/60° WB	Total		74,800	97,400	131,300	156,300
50% RH	Sensible		66,600	84,700	113,600	133,100
72° DB/58.6° WB	Total		73,300	94,700	127,700	152,300
45% RH	Sensible		71,100	90,000	120,800	141,400

BLOWER SECTION

Airflow - CFM		3,000	3,600	4,750	5,500
Standard motor - horsepower		2	3	5	5
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)	1.3	1.5	1.5	0.8
Maximum E.S.P.	(Next Size Motor)	1.3	1.5	1.5	0.8
Next size motor - horsepower		3	5	7.5	7.5

COMPRESSOR

Type		Scroll	Scroll	Scroll	Scroll
Quantity		1	1	1	1
Refrigerant type		R-407C	R-407C	R-407C	R-407C

EVAPORATOR COIL

Face velocity - sq ft		12.2	12.2	12.2	12.2
Rows of coils		3	4	5	5
Face velocity - fpm		246	295	389	451

REHEAT SECTION

Electric		Standard	Standard	Standard	Standard
kW		15	15	15	15
Capacity - Btu/hr		51,225	51,225	51,225	51,225

HUMIDIFIER SECTION

Steam generator		Optional	Optional	Optional	Optional
kW		3.4	3.4	3.4	3.4
Capacity - lb/hr	(Adjustable)	10	10	10	10
kW		3.4-10.2	3.4-10.2	3.4-10.2	3.4-10.2
Capacity - lb/hr	(Adjustable)	10-30	10-30	10-30	10-30

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

MODEL NUMBER: *DALA-* *06-CO-D* *08-CO-D* *10-CO-D* *13-CO-D*

CAPACITY in BTU/hr - gross

80° DB/67° WB	Total	79,300	106,600	135,600	167,200
50% RH	Sensible	61,400	79,300	103,700	128,200
75° DB/62.5° WB	Total	72,600	98,000	124,300	153,800
50% RH	Sensible	60,100	77,900	101,600	125,900
75° DB/61° WB	Total	70,500	94,300	121,400	149,500
45% RH	Sensible	64,000	82,300	108,400	134,000
72° DB/60° WB	Total	69,400	92,900	118,900	146,500
50% RH	Sensible	58,900	76,000	108,400	123,200
72° DB/58.6° WB	Total	67,500	90,900	115,600	143,500
45% RH	Sensible	62,600	80,700	105,600	131,100

BLOWER SECTION

Airflow - CFM		2,500	3,000	4,000	5,000
Standard motor - horsepower		2	2	3	5
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)	0.9	1.3	1.4	1.1
Maximum E.S.P.	(Next Size Motor)	0.9	1.3	1.5	1.1
Next size motor - horsepower		3	3	5	7.5

COMPRESSORS

Type		Scroll	Scroll	Scroll	Scroll
Quantity		2	2	2	2
Refrigerant type		R-407C	R-407C	R-407C	R-407C

EVAPORATOR COIL

Face area - sq ft		12.2	12.2	12.2	12.2
Rows of coils		3	4	5	5
Face velocity - fpm		205	246	328	410

REHEAT SECTION

Electric		Standard	Standard	Standard	Standard
kW		15	15	15	15
Capacity - Btu/hr		51,225	51,225	51,225	51,225

HUMIDIFIER SECTION

Steam generator		Optional	Optional	Optional	Optional
kW		3.4	3.4	3.4	3.4
Capacity - lb/hr	(Adjustable)	10	10	10	10
kW		3.4-10.2	3.4-10.2	3.4-10.2	3.4-10.2
Capacity - lb/hr	(Adjustable)	10-30	10-30	10-30	10-30

AIR COOLED: Performance data at STANDARD airflow - remote air cooled condenser - dual compressors

MODEL NUMBER: **DALA-** **06-CO-D** **08-CO-D** **10-CO-D** **13-CO-D**

ELECTRICAL SECTION

Next Size Motor

Electrical data based on: electric reheat - **YES**, 10 lb/hr steam generator humidifier - **YES**, and NEXT SIZE MOTOR.

208-230/3/60	FLA/MCA/MOP	60/73/80	64/77/80	74/89/90	80/96/100
460/3/60	FLA/MCA/MOP	28/34/35	30/37/40	34/41/45	39/47/50
575/3/60	FLA/MCA/MOP	23/27/30	24/29/30	27/33/35	31/37/40

Electrical data based on: electric reheat - **YES**, 30 lb/hr steam generator humidifier - **YES**, and NEXT SIZE MOTOR.

208-230/3/60	FLA/MCA/MOP	60/73/80	64/77/80	78/89/90	86/98/100
460/3/60	FLA/MCA/MOP	28/34/35	30/37/40	37/43/45	44/49/50
575/3/60	FLA/MCA/MOP	23/27/30	24/29/30	30/34/35	34/38/40

Electrical data based on: electric reheat - **NO**, 10 lb/hr steam generator humidifier - **YES**, and NEXT SIZE MOTOR.

208-230/3/60	FLA/MCA/MOP	45/52/60	52/59/60	66/74/80	74/83/90
460/3/60	FLA/MCA/MOP	22/25/30	26/30/35	32/36/40	38/43/50
575/3/60	FLA/MCA/MOP	18/20/25	21/24/25	25/29/30	29/33/40

Electrical data based on: electric reheat - **NO**, 30 lb/hr steam generator humidifier - **YES**, and NEXT SIZE MOTOR.

208-230/3/60	FLA/MCA/MOP	57/67/70	64/74/80	78/89/90	86/98/100
460/3/60	FLA/MCA/MOP	27/32/35	32/37/40	37/43/45	44/49/50
575/3/60	FLA/MCA/MOP	22/26/30	25/29/30	30/34/35	34/38/40

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

208-230/3/60	FLA/MCA/MOP	60/73/80	64/77/80	74/89/90	80/96/100
460/3/60	FLA/MCA/MOP	28/34/35	30/37/40	34/41/45	39/47/50
575/3/60	FLA/MCA/MOP	23/27/30	24/29/30	27/33/35	31/37/40

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

208-230/3/60	FLA/MCA/MOP	29/32/40	35/39/50	49/54/70	57/62/80
460/3/60	FLA/MCA/MOP	14/16/20	19/21/25	25/27/35	31/33/40
575/3/60	FLA/MCA/MOP	12/13/15	15/16/20	20/21/25	23/26/30

NEXT SIZE MOTOR

Horsepower		3	3	5	7.5
208-230/3/60	FLA	8.4	8.4	14.8	20.0
460/3/60	FLA	4.2	4.2	6.6	10.1
575/3/60	FLA	3.3	3.3	5.3	8.6

COMPRESSOR

208-230/3/60	FLA	10.3	13.5	17.3	18.6
460/3/60	FLA	5.1	7.4	9.0	10.3
575/3/60	FLA	4.2	5.8	7.1	7.4

REMOTE CONDENSER

Condenser selection at 95° F ambient	DARC-06	DARC-09	DARC-11	DARC-15
Condenser selection at 100° F ambient	DARC-07	DARC-11	DARC-15	DARC-17
Condenser selection at 105° F ambient	DARC-11	DARC-15	DARC-17	DARC-21

(Notes: Condensers are not available in 575 volts. Condensers are selected at sea level. Refer to page 65 for electrical data.)

FLA - Full load amps

MCA - Minimum circuit amps (wire sizing amps)

MOP - Maximum Rating of the Overcurrent Protective Device

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

MODEL NUMBER:		DALA-	06-CO-D	08-CO-D	10-CO-D	13-CO-D
CAPACITY in Btu/hr - gross						
80° DB/67° WB	Total		81,500	110,600	139,200	169,800
50% RH	Sensible		68,100	88,100	114,500	135,400
75° DB/62.5° WB	Total		75,200	101,200	127,700	156,300
50% RH	Sensible		66,800	86,200	112,100	132,900
75° DB/61° WB	Total		72,800	98,100	123,900	152,000
45% RH	Sensible		71,400	91,900	119,700	141,800
72° DB/60° WB	Total		71,100	96,000	122,200	148,000
50% RH	Sensible		65,000	84,100	109,700	129,500
72° DB/58.6° WB	Total		69,200	93,300	118,800	145,000
45% RH	Sensible		68,900	89,400	116,800	138,200

BLOWER SECTION

Airflow - CFM		3,000	3,600	4,750	5,500
Standard motor - horsepower		2	3	5	5
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)	1.3	1.5	1.5	0.8
Maximum E.S.P.	(Next Size Motor)	1.3	1.5	1.5	0.8
Next size motor - horsepower		3	5	7.5	7.5

COMPRESSORS

Type		Scroll	Scroll	Scroll	Scroll
Quantity		2	2	2	2
Refrigerant type		R-407C	R-407C	R-407C	R-407C

EVAPORATOR COIL

Face area - sq ft		12.2	12.2	12.2	12.2
Rows of coils		3	4	5	5
Face velocity - fpm		246	295	389	451

REHEAT SECTION

Electric		Standard	Standard	Standard	Standard
kW		15	15	15	15
Capacity - Btu/hr		51,225	51,225	51,225	51,225

HUMIDIFIER SECTION

Steam generator		Optional	Optional	Optional	Optional
kW		3.4	3.4	3.4	3.4
Capacity - lb/hr	(Adjustable)	10	10	10	10
kW		3.4-10.2	3.4-10.2	3.4-10.2	3.4-10.2
Capacity - lb/hr	(Adjustable)	10-30	10-30	10-30	10-30

AIR COOLED: Performance data at STANDARD airflow with outdoor condensing unit - single compressor

MODEL NUMBER:	DALA-	06-AO-S	08-AO-S	10-AO-S	13-AO-S
CAPACITY in Btu/hr - gross					
80° DB/67° WB	Total	83,000	103,400	144,900	175,800
50% RH	Sensible	62,800	78,000	107,300	131,600
75° DB/62.5° WB	Total	76,600	94,800	133,300	161,500
50% RH	Sensible	61,800	76,500	105,400	129,100
75° DB/61° WB	Total	74,400	92,000	129,700	157,000
45% RH	Sensible	65,700	81,300	112,000	137,300
72° DB/60° WB	Total	73,000	90,400	127,100	154,300
50% RH	Sensible	60,500	74,900	103,300	126,600
72° DB/58.6° WB	Total	71,000	87,900	124,000	150,300
45% RH	Sensible	64,100	79,300	109,500	134,200

BLOWER SECTION

Airflow - CFM		2,500	3,000	4,000	5,000
Standard motor - horsepower		2	2	3	5
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)	0.9	1.3	1.4	1.1
Maximum E.S.P.	(Next Size Motor)	0.9	1.3	1.5	1.1
Next size motor - horsepower		3	3	5	7.5

COMPRESSOR

(in Outdoor Condensing Unit)

Type		Scroll	Scroll	Scroll	Scroll
Quantity		1	1	1	1
Refrigerant type		R-407C	R-407C	R-407C	R-407C

EVAPORATOR COIL

Face area - sq ft		12.2	12.2	12.2	12.2
Rows of coils		3	4	5	5
Face velocity - fpm		205	246	328	410

REHEAT SECTION

Electric		Standard	Standard	Standard	Standard
kW		15	15	15	15
Capacity - Btu/hr		51,225	51,225	51,225	51,225

HUMIDIFIER SECTION

Steam generator		Optional	Optional	Optional	Optional
kW		3.4	3.4	3.4	3.4
Capacity - lb/hr	(Adjustable)	10	10	10	10
kW		3.4-10.2	3.4-10.2	3.4-10.2	3.4-10.2
Capacity - lb/hr	(Adjustable)	10-30	10-30	10-30	10-30

AIR COOLED: Performance data at STANDARD airflow with outdoor condensing unit - single compressor

MODEL NUMBER: **DALA-** **06-AO-S** **08-AO-S** **10-AO-S** **13-AO-S**

ELECTRICAL SECTION

Next Size Motor

Electrical data based on: electric reheat - **YES**, 10 lb/hr steam generator humidifier - **YES**, and NEXT SIZE MOTOR.

208-230/3/60	FLA/MCA/MOP	50/63/70	50/63/70	56/71/80	62/77/80
460/3/60	FLA/MCA/MOP	23/29/30	23/29/30	25/32/35	29/36/40

Electrical data based on: electric reheat - **YES**, 30 lb/hr steam generator humidifier - **YES**, and NEXT SIZE MOTOR.

208-230/3/60	FLA/MCA/MOP	50/63/70	50/63/70	56/71/80	62/77/80
460/3/60	FLA/MCA/MOP	23/29/30	23/29/30	25/32/35	29/36/40

Electrical data based on: electric reheat - **NO**, 10 lb/hr steam generator humidifier - **YES**, and NEXT SIZE MOTOR.

208-230/3/60	FLA/MCA/MOP	25/31/35	25/31/35	31/39/45	36/45/60
460/3/60	FLA/MCA/MOP	12/14/15	12/14/15	14/17/20	17/22/30

Electrical data based on: electric reheat - **NO**, 30 lb/hr steam generator humidifier - **YES**, and NEXT SIZE MOTOR.

208-230/3/60	FLA/MCA/MOP	37/46/50	37/46/50	43/54/60	48/60/70
460/3/60	FLA/MCA/MOP	17/21/25	17/21/25	19/24/25	23/29/35

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

208-230/3/60	FLA/MCA/MOP	50/63/70	50/63/70	56/71/80	62/77/80
460/3/60	FLA/MCA/MOP	23/29/30	23/29/30	25/32/35	29/36/40

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

208-230/3/60	FLA/MCA/MOP	8.4/11/15	8.4/11/15	15/19/30	20/25/45
460/3/60	FLA/MCA/MOP	4.2/5.3/15	4.2/5.3/15	6.6/8.3/15	10/13/20

NEXT SIZE MOTOR

Horsepower		3	3	5	7.5
208-230/3/60	FLA	8.4	8.4	14.8	20.0
460/3/60	FLA	4.2	4.2	6.6	10.1

CONDENSING UNIT

Condensing unit at 95° F ambient model number		DRCU-06	DRCU-09	DRCU-11	DRCU-15
208-230/3/60	FLA/MCA/MOP	23/27/45	33/40/60	46/56/90	49/60/100
460/3/60	FLA/MCA/MOP	12/15/25	17/20/35	21/26/40	26/31/50
Condensing unit at 100° F ambient model number		DRCU-07	DRCU-11	DRCU-15	DRCU-17
208-230/3/60	FLA/MCA/MOP	23/27/45	37/44/70	46/56/90	49/60/100
460/3/60	FLA/MCA/MOP	12/15/25	19/23/35	21/26/40	26/31/50
Condensing Unit at 105° F ambient model number		DRCU-11	DRCU-15	DRCU-17	DRCU-21
208-230/3/60	FLA/MCA/MOP	27/32/50	37/44/70	46/56/90	54/64/100
460/3/60	FLA/MCA/MOP	15/17/25	19/23/35	21/26/40	28/34/50

COMPRESSOR

208-230/3/60	FLA	18.6	28.8	37.8	41.0
460/3/60	FLA	10.3	14.7	17.2	21.8

(Notes: Condensing units are not available in 575 volts. Condensing units are selected at sea level. Refer to page 64 for condenser fan motor FLA for quantities.)

FLA - Full load amps

MCA - Minimum circuit amps (wire sizing amps)

MOP - Maximum Rating of the Overcurrent Protective Device

AIR COOLED: Performance data at OPTIONAL airflow with outdoor condensing unit - single compressor

MODEL NUMBER:		DALA-	06-AO-S	08-AO-S	10-AO-S	13-AO-S
CAPACITY in Btu/hr - gross						
80° DB/67° WB	Total		86,000	112,200	149,300	178,000
50% RH	Sensible		69,600	86,500	117,900	138,500
75° DB/62.5° WB	Total		78,900	102,700	138,000	164,000
50% RH	Sensible		68,300	84,800	116,300	136,100
75° DB/61° WB	Total		76,400	99,600	134,000	159,500
45% RH	Sensible		72,900	92,500	124,000	145,000
72° DB/60° WB	Total		74,800	97,400	131,300	156,300
50% RH	Sensible		66,600	84,700	113,600	133,100
72° DB/58.6° WB	Total		73,300	94,700	127,700	152,300
45% RH	Sensible		71,100	90,000	120,800	141,100

BLOWER SECTION						
Airflow - CFM			3,000	3,600	4,750	5,500
Standard motor - horsepower			2	3	5	5
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)		1.3	1.5	1.5	0.8
Maximum E.S.P.	(Next Size Motor)		1.3	1.5	1.5	0.8
Next size motor - horsepower			3	5	7.5	7.5

COMPRESSOR		<i>(in Outdoor Condensing Unit)</i>				
Type			Scroll	Scroll	Scroll	Scroll
Quantity			1	1	1	1
Refrigerant type			R-407C	R-407C	R-407C	R-407C

EVAPORATOR COIL						
Face area - sq ft			12.2	12.2	12.2	12.2
Rows of coil			3	4	5	5
Face velocity - fpm			246	295	389	451

REHEAT SECTION						
Electric			Standard	Standard	Standard	Standard
kW			15	15	15	15
Capacity - Btu/hr			51,225	51,225	51,225	51,225

HUMIDIFIER SECTION						
Steam generator			Optional	Optional	Optional	Optional
kW			3.4	3.4	3.4	3.4
Capacity - lb/hr	(Adjustable)		10	10	10	10
kW			3.4-10.2	3.4-10.2	3.4-10.2	3.4-10.2
Capacity - lb/hr	(Adjustable)		10-30	10-30	10-30	10-30

AIR COOLED: Performance data at OPTIONAL airflow with outdoor condensing unit - single compressor

MODEL NUMBER: **DALA-** **06-AO-S** **08-AO-S** **10-AO-S** **13-AO-S**

FILTER SECTION

Quantity		2	2	2	2
Size - inches		20x25x4	20x25x4	20x25x4	20x25x4
Quantity		2	2	2	2
Size - inches		16x25x4	16x25x4	16x25x4	16x25x4

(Note: Efficiency based on ASHRAE Std. 52.1-1992.)

CONNECTION SIZES

Liquid line - O.D. Copper		1/2	5/8	5/8	5/8
Suction line - O.D. Copper		3/4	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

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

ELECTRICAL SECTION

Standard Motor

Electrical data based on: electric reheat **YES**, 10 lb/hr steam generator humidifier - **YES**, and STANDARD MOTOR.

208-230/3/60	FLA/MCA/MOP	50/63/70	50/63/70	56/71/80	56/71/80
460/3/60	FLA/MCA/MOP	23/29/30	23/29/30	25/32/35	25/32/35

Electrical data based on: electric reheat - **YES**, 30 lb/hr steam generator humidifier - **YES**, and STANDARD MOTOR.

208-230/3/60	FLA/MCA/MOP	50/63/70	50/63/70	56/71/80	56/71/80
460/3/60	FLA/MCA/MOP	23/29/30	23/29/30	25/32/35	25/32/35

Electrical data based on: electric reheat - **NO**, 10 lb/hr steam generator humidifier - **YES**, and STANDARD MOTOR.

208-230/3/60	FLA/MCA/MOP	25/31/30	25/31/35	31/39/45	31/39/45
460/3/60	FLA/MCA/MOP	12/14/15	12/14/15	14/17/20	14/17/20

Electrical data based on: electric reheat - **NO**, 30 lb/hr steam generator humidifier - **YES**, and STANDARD MOTOR.

208-230/3/60	FLA/MCA/MOP	37/46/50	37/46/50	43/54/60	43/54/60
460/3/60	FLA/MCA/MOP	17/21/25	17/21/25	19/24/25	19/24/25

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

208-230/3/60	FLA/MCA/MOP	50/63/70	50/63/70	56/71/80	56/71/80
460/3/60	FLA/MCA/MOP	23/29/30	23/29/30	25/32/35	25/32/35

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

208-230/3/60	FLA/MCA/MOP	8.0/11/15	8.0/11/15	15/19/30	15/19/30
460/3/60	FLA/MCA/MOP	4.2/5.3/15	4.2/5.3/15	6.6/8.3/15	6.6/8.3/15

STANDARD MOTOR

Horsepower		3	3	5	5
208-230/3/60	FLA	8.4	8.4	14.8	14.8
460/3/60	FLA	4.2	4.2	6.6	6.6

FLA - Full load amps

MCA - Minimum circuit amps (wire sizing amps)

MOP - Maximum Rating of the Overcurrent Protective Device

AIR COOLED: Performance data at STANDARD airflow with outdoor condensing unit - dual compressors

MODEL NUMBER: *DALA-* *06-AO-D* *08-AO-D* *10-AO-D* *13-AO-D*

CAPACITY - Btu/hr - gross

80° DB/67° WB	Total	79,300	106,600	135,600	167,200
50% RH	Sensible	61,400	79,300	103,700	128,200
75° DB/62.5° WB	Total	72,600	98,000	124,300	153,800
50% RH	Sensible	60,100	77,900	101,600	125,900
75° DB/61° WB	Total	70,500	94,300	121,400	149,500
45% RH	Sensible	64,000	82,300	108,400	134,000
72° DB/60° WB	Total	69,400	92,900	118,900	146,500
50% RH	Sensible	58,900	76,000	108,400	123,200
72° DB/58.6° WB	Total	67,500	90,900	115,600	143,500
45% RH	Sensible	62,600	80,700	105,600	131,100

BLOWER SECTION

Airflow - CFM		2,500	3,000	4,000	5,000
Standard motor - horsepower		2	2	3	5
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.	<i>(Standard Motor)</i>	0.9	1.3	1.4	1.1
Maximum E.S.P.	<i>(Next Size Motor)</i>	0.9	1.3	1.5	1.1
Next size motor - horsepower		3	3	5	7.5

COMPRESSORS

(in Outdoor Condensing Unit)

Type		Scroll	Scroll	Scroll	Scroll
Quantity		2	2	2	2
Refrigerant type		R-407C	R-407C	R-407C	R-407C

EVAPORATOR COIL

Face velocity - sq ft		12.2	12.2	12.2	12.2
Rows of coils		3	4	5	5
Face velocity - fpm		205	246	328	410

REHEAT SECTION

Electric		Standard	Standard	Standard	Standard
kW		15	15	15	15
Capacity - Btu/hr		51,225	51,225	51,225	51,225

HUMIDIFIER SECTION

Steam generator		Optional	Optional	Optional	Optional
kW		3.4	3.4	3.4	3.4
Capacity - lb/hr	<i>(Adjustable)</i>	10	10	10	10
kW		3.4-10.2	3.4-10.2	3.4-10.2	3.4-10.2
Capacity - lb/hr	<i>(Adjustable)</i>	10-30	10-30	10-30	10-30

AIR COOLED: Performance data at STANDARD airflow with outdoor condensing unit - dual compressors

MODEL NUMBER: **DALA-** **06-AO-D** **08-AO-D** **10-AO-D** **13-AO-D**

ELECTRICAL SECTION

Next Size Motor

Electrical data based on: electric reheat - **YES**, 10 lb/hr steam generator humidifier - **YES**, and NEXT SIZE MOTOR.

208-230/3/60	FLA/MCA/MOP	50/63/70	50/63/70	56/71/80	62/77/80
460/3/60	FLA/MCA/MOP	23/29/30	23/29/30	25/32/35	29/36/40

Electrical data based on: electric reheat - **YES**, 30 lb/hr steam generator humidifier - **YES**, and NEXT SIZE MOTOR.

208-230/3/60	FLA/MCA/MOP	50/63/70	50/63/70	56/71/80	62/77/80
460/3/60	FLA/MCA/MOP	23/29/30	23/29/30	25/32/35	29/36/40

Electrical data based on: electric reheat - **NO**, 10 lb/hr steam generator humidifier - **YES**, and NEXT SIZE MOTOR.

208-230/3/60	FLA/MCA/MOP	25/31/35	25/31/35	31/39/45	36/45/60
460/3/60	FLA/MCA/MOP	12/14/20	12/14/20	14/17/20	17/22/30

Electrical data based on: electric reheat **NO**, 30 lb/hr steam generator humidifier - **YES**, and NEXT SIZE MOTOR.

208-230/3/60	FLA/MCA/MOP	37/46/50	37/46/50	43/54/60	48/60/70
460/3/60	FLA/MCA/MOP	17/21/25	17/21/25	19/24/25	23/29/35

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

208-230/3/60	FLA/MCA/MOP	50/63/70	50/63/70	56/71/80	62/77/80
460/3/60	FLA/MCA/MOP	23/29/30	23/29/30	25/32/35	29/36/40

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

208-230/3/60	FLA/MCA/MOP	8.4/11/15	8.4/11/15	15/19/30	20/25/45
460/3/60	FLA/MCA/MOP	4.2/5.3/15	4.2/5.3/15	6.6/8.3/15	10/13/20

NEXT SIZE MOTOR

Horsepower		3	3	5	7.5
208-230/3/60	FLA	8.4	8.4	14.8	20.0
460/3/60	FLA	4.2	4.2	6.6	10.1

CONDENSING UNIT

Condensing unit at 95° F ambient model number		DRCU-06	DRCU-09	DRCU-11	DRCU-15
208-230/3/60	FLA/MCA/MOP	25/27/35	31/35/45	43/47/60	46/50/60
460/3/60	FLA/MCA/MOP	12/14/15	17/19/25	22/24/30	25/27/35
Condensing unit at 100° F ambient model number		DRCU-07	DRCU-11	DRCU-15	DRCU-17
208-230/3/60	FLA/MCA/MOP	25/27/35	35/39/50	43/47/60	46/50/60
460/3/60	FLA/MCA/MOP	12/14/15	19/21/35	22/24/30	25/27/35
Condensing unit at 105° F ambient model number		DRCU-11	DRCU-15	DRCU-17	DRCU-21
208-230/3/60	FLA/MCA/MOP	29/32/40	35/39/50	43/47/60	50/54/70
460/3/60	FLA/MCA/MOP	14/16/20	19/21/25	22/24/30	27/30/35

COMPRESSORS

208-230/3/60	FLA	10.3	13.5	17.3	18.6
460/3/60	FLA	5.1	7.4	9.0	10.3

(Notes: Condensing units are not available in 575 volts. Condensing units are selected at sea level. Refer to page 65 for condenser fan motor FLA and quantities.)

FLA - Full load amps

MCA - Minimum circuit amps (wire sizing amps)

MOP - Maximum Rating of the Overcurrent Protective Device

AIR COOLED: Performance data at OPTIONAL airflow with outdoor condensing unit - dual compressors

MODEL NUMBER:		DALA-	06-AO-D	08-AO-D	10-AO-D	13-AO-D
CAPACITY in Btu/hr - gross						
80° DB/67° WB	Total		81,500	110,600	139,200	169,800
50% RH	Sensible		68,100	88,100	114,500	135,400
75° DB/62.5° WB	Total		75,200	101,200	127,700	156,300
50% RH	Sensible		66,800	86,200	112,100	132,900
75° DB/61° WB	Total		72,800	98,100	123,900	152,000
45% RH	Sensible		71,400	91,900	119,700	141,800
72° DB/60° WB	Total		71,100	96,000	122,200	148,000
50% RH	Sensible		65,000	84,100	109,700	129,500
72° DB/58.6° WB	Total		69,200	93,300	118,800	145,000
45% RH	Sensible		68,900	89,400	116,800	138,200

BLOWER SECTION

Airflow - CFM		3,000	3,600	4,750	5,500
Standard motor - horsepower		2	3	5	5
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)	1.3	1.5	1.5	0.8
Maximum E.S.P.	(Next Size Motor)	1.3	1.5	1.5	0.8
Next size motor - horsepower		3	5	7.5	7.5

COMPRESSORS

(in Outdoor Condensing Unit)

Type		Scroll	Scroll	Scroll	Scroll
Quantity		2	2	2	2
Refrigeration type		R-407C	R-407C	R-407C	R-407C

EVAPORATOR COIL

Face velocity - sq ft		12.2	12.2	12.2	12.2
Rows of coils		3	4	5	5
Face velocity - fpm		246	295	389	451

REHEAT SECTION

Electric		Standard	Standard	Standard	Standard
kW		15	15	15	15
Capacity - Btu/hr		51,225	51,225	51,225	51,225

HUMIDIFIER SECTION

Steam generator		Optional	Optional	Optional	Optional
kW		3.4	3.4	3.4	3.4
Capacity - lb/hr	(Adjustable)	10	10	10	10
kW		3.4-10.2	3.4-10.2	3.4-10.2	3.4-10.2
Capacity - lb/hr	(Adjustable)	10-30	10-30	10-30	10-30

WATER COOLED: Performance data at STANDARD airflow with single compressor

MODEL NUMBER: *DALW* *06-WP-S* *08-WP-S* *10-WP-S* *13-WP-S*

CAPACITY in Btu/hr - gross

80° DB/67° WB	Total	86,400	112,500	151,100	183,800
50% RH	Sensible	64,100	81,600	109,700	134,700
75° DB/62.5° WB	Total	79,700	103,500	139,400	168,400
50% RH	Sensible	63,100	80,200	108,100	132,100
75° DB/61° WB	Total	77,400	100,200	135,300	163,800
45% RH	Sensible	67,000	84,900	114,500	140,300
72° DB/60° WB	Total	76,200	98,700	133,400	160,500
50% RH	Sensible	61,900	78,600	106,100	129,400
72° DB/58.6° WB	Total	74,200	96,000	130,500	156,400
45% RH	Sensible	65,600	83,100	112,500	137,000

GLYCOL COOLED: Performance data at STANDARD airflow with single compressor

MODEL NUMBER: *DALG* *06-WP-S* *08-WP-S* *10-WP-S* *13-WP-S*

CAPACITY in Btu/hr - gross

80° DB/67° WB	Total	81,400	106,400	142,100	171,800
50% RH	Sensible	62,200	79,200	106,100	130,000
75° DB/62.5° WB	Total	75,100	97,200	131,000	158,100
50% RH	Sensible	61,200	77,500	104,400	127,700
75° DB/61° WB	Total	72,500	94,100	127,100	153,700
45% RH	Sensible	64,900	82,200	110,900	135,900
72° DB/60° WB	Total	71,400	92,700	125,300	150,700
50% RH	Sensible	59,800	75,900	102,500	125,000
72° DB/58.6° WB	Total	69,900	90,100	121,800	147,600
45% RH	Sensible	63,600	80,400	108,500	133,000

-The following sections apply to both Glycol and Water cooled units. -

BLOWER SECTION

Airflow - CFM		2,500	3,000	4,000	5,000
Standard motor - horsepower		2	2	3	5
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.	<i>(Standard Motor)</i>	0.9	1.3	1.4	1.1
Maximum E.S.P.	<i>(Next Size Motor)</i>	0.9	1.3	1.5	1.1
Next size motor - horsepower		3	3	5	7.5

COMPRESSOR

Type		Scroll	Scroll	Scroll	Scroll
Quantity		1	1	1	1
Refrigerant type		R-407C	R-407C	R-407C	R-407C

WATER/GLYCOL COOLED: Performance data at STANDARD airflow with single compressor

MODEL NUMBER: *DAL** **06-WP-S** **08-WP-S** **10-WP-S** **13-WP-S**

EVAPORATOR COIL

Face area - sq ft		12.2	12.2	12.2	12.2
Rows of coil		3	4	5	5
Face velocity - FPM		205	246	328	410

REHEAT SECTION

Electric		Standard	Standard	Standard	Standard
kW		15	15	15	15
Capacity - Btu/hr		51,225	51,225	51,225	51,225

HUMIDIFIER SECTION

Steam generator		Optional	Optional	Optional	Optional
kW		3.4	3.4	3.4	3.4
Capacity - lb/hr	<i>(Adjustable)</i>	10	10	10	10
kW		3.4-10.2	3.4-10.2	3.4-10.2	3.4-10.2
Capacity - lb/hr	<i>(Adjustable)</i>	10-30	10-30	10-30	10-30

FILTER SECTION

Quantity		2	2	2	2
Size - inches		20x25x4	20x25x4	20x25x4	20x25x4
Quantity		2	2	2	2
Size - inches		16x25x4	16x25x4	16x25x4	16x25x4
Efficiency percentage		30	30	30	30

(Note: Efficiency based on ASHRAE Std. 52.1-1992.)

CONNECTION SIZES

Condenser water supply - O.D. Copper		1-5/8	1-5/8	1-5/8	1-5/8
Condenser water return - O.D. Copper		1-5/8	1-5/8	1-5/8	1-5/8
Condensate drain		3/4	3/4	3/4	3/4
Humidifier supply		1/4	1/4	1/4	1/4

ELECTRICAL SECTION

Standard Motor

Electrical data based on: electric reheat - **YES**, 10 lb/hr steam generator humidifier - **YES**, and STANDARD MOTOR.

208-230/3/60	FLA/MCA/MOP	66/81/90	76/94/110	88/108/125	97/118/125
460/3/60	FLA/MCA/MOP	32/39/40	37/45/50	40/49/60	47/57/70
575/3/60	FLA/MCA/MOP	25/31/35	28/35/40	34/42/50	38/46/50

Electrical data based on: electric reheat - **YES**, 30 lb/hr steam generator humidifier - **YES**, and STANDARD MOTOR.

208-230/3/60	FLA/MCA/MOP	66/81/90	76/94/110	88/108/125	97/118/125
460/3/60	FLA/MCA/MOP	32/39/40	37/45/50	40/49/60	47/57/70
575/3/60	FLA/MCA/MOP	25/31/35	28/35/40	34/42/50	38/46/50

Electrical data based on: electric reheat - **NO**, 10 lb/hr steam generator humidifier - **YES**, and STANDARD MOTOR.

208-230/3/60	FLA/MCA/MOP	41/50/60	51/62/80	63/76/100	72/86/110
460/3/60	FLA/MCA/MOP	21/25/30	25/31/40	29/35/50	36/43/60
575/3/60	FLA/MCA/MOP	16/19/25	19/23/30	25/30/40	29/34/50

* W - WATER COOLED G - GLYCOL COOLED

FLA - Full load amps

MCA - Minimum circuit amps (wire sizing amps)

MOP - Maximum Rating of the Overcurrent Protective Device

WATER/GLYCOL COOLED: Performance data at STANDARD airflow with single compressor

MODEL NUMBER: **DAL*** **06-WP-S** **08-WP-S** **10-WP-S** **13-WP-S**

ELECTRICAL SECTION

Standard Motor - continued

Electrical data based on: electric reheat - **NO**, 30 lb/hr steam generator humidifier - **YES**, and STANDARD MOTOR.

208-230/3/60	FLA/MCA/MOP	53/65/70	63/77/90	75/91/110	84/101/125
460/3/60	FLA/MCA/MOP	26/32/35	31/37/45	34/42/50	41/50/60
575/3/60	FLA/MCA/MOP	20/25/30	24/29/35	29/35/45	33/40/50

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

208-230/3/60	FLA/MCA/MOP	66/81/90	76/94/100	88/108/125	97/118/125
460/3/60	FLA/MCA/MOP	32/39/45	37/45/50	40/49/60	47/57/70
575/3/60	FLA/MCA/MOP	25/31/35	28/35/40	34/42/50	38/46/50

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

208-230/3/60	FLA/MCA/MOP	25/29/45	35/42/70	46/56/90	56/66/100
460/3/60	FLA/MCA/MOP	13/16/25	18/21/35	21/26/40	28/34/50
575/3/60	FLA/MCA/MOP	10/12/15	13/16/25	19/23/35	23/27/40

STANDARD MOTOR

Horsepower		2	2	3	5
208-230/3/60	FLA	6.0	6.0	8.4	14.8
460/3/60	FLA	3.0	3.0	4.2	6.6
575/3/60	FLA	2.5	2.5	3.3	5.3

ELECTRICAL SECTION

Next Size Motor

Electrical data based on: electric reheat - **YES**, 10 lb/hr steam generator humidifier - **YES**, and NEXT SIZE MOTOR.

208-230/3/60	FLA/MCA/MOP	69/84/90	79/97/110	91/114/125	103/123/150
460/3/60	FLA/MCA/MOP	33/41/45	38/46/50	43/52/60	51/61/70
575/3/60	FLA/MCA/MOP	26/31/35	29/36/40	36/44/50	41/49/60

Electrical data based on: electric reheat - **YES**, 30 lb/hr steam generator humidifier - **YES**, and NEXT SIZE MOTOR.

208-230/3/60	FLA/MCA/MOP	69/84/90	79/97/110	94/114/125	103/123/150
460/3/60	FLA/MCA/MOP	33/41/45	38/46/50	43/52/60	51/61/70
575/3/60	FLA/MCA/MOP	26/31/35	29/36/40	36/44/50	41/49/60

Electrical data based on: electric reheat - **NO**, 10 lb/hr steam generator humidifier - **YES**, and NEXT SIZE MOTOR.

208-230/3/60	FLA/MCA/MOP	43/52/60	54/65/80	69/82/110	77/92/125
460/3/60	FLA/MCA/MOP	22/26/30	26/32/40	31/37/50	39/47/60
575/3/60	FLA/MCA/MOP	17/20/25	20/24/30	27/32/45	32/38/50

Electrical data based on: electric reheat - **NO**, 30 lb/hr steam generator humidifier - **YES**, and NEXT SIZE MOTOR.

208-230/3/60	FLA/MCA/MOP	55/67/70	66/80/100	81/97/125	89/107/125
460/3/60	FLA/MCA/MOP	27/33/40	32/39/50	37/44/50	45/53/70
575/3/60	FLA/MCA/MOP	21/25/30	24/30/35	31/37/50	36/43/50

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

208-230/3/60	FLA/MCA/MOP	69/84/90	79/97/110	94/114/125	103/123/150
460/3/60	FLA/MCA/MOP	33/41/45	38/46/50	43/52/60	51/61/70
575/3/60	FLA/MCA/MOP	26/31/35	29/36/40	36/44/50	41/49/60

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

208-230/3/60	FLA/MCA/MOP	27/32/50	37/44/70	53/62/90	61/71/110
460/3/60	FLA/MCA/MOP	15/17/25	19/23/35	24/28/45	32/37/50
575/3/60	FLA/MCA/MOP	11/13/15	14/17/25	21/25/40	26/30/45

* W - WATER COOLED G - GLYCOL COOLED

FLA - Full load amps

MCA - Minimum circuit amps (wire sizing amps)

MOP - Maximum Rating of the Overcurrent Protective Device

WATER/GLYCOL COOLED: Performance data at STANDARD airflow with single compressor

MODEL NUMBER: *DAL** *06-WP-S* *08-WP-S* *10-WP-S* *13-WP-S*

NEXT SIZE MOTOR

Horsepower		<i>06-WP-S</i>	<i>08-WP-S</i>	<i>10-WP-S</i>	<i>13-WP-S</i>
208-230/3/60	FLA	3	3	5	7.5
460/3/60	FLA	8.4	8.4	14.8	20.0
575/3/60	FLA	4.2	4.2	6.6	10.1
		3.3	3.3	5.3	8.6

COMPRESSOR

208-230/3/60	FLA	18.6	28.8	37.8	41.0
460/3/60	FLA	10.3	14.7	17.2	21.8
575/3/60	FLA	7.4	10.8	15.5	17.3

FLUID COOLER

Fluid cooler at 95° F ambient model number		DAFC-11	DAFC-15	DAFC-21	DAFC-21
208-230/3/60	FLA/MCA/MOP	8.4/9.5/15	8.4/9.5/15	13/14/15	13/14/15
460/3/60	FLA/MCA/MOP	4.2/4.7/15	4.1/4.7/15	6.3/6.8/15	6.3/6.8/15
Fluid cooler at 100° F ambient model number		DAFC-21	DAFC-21	DAFC-28	DAFC-30
208-230/3/60	FLA/MCA/MOP	13/14/15	13/14/15	13/14/15	17/18/20
460/3/60	FLA/MCA/MOP	6.3/6.8/15	6.3/6.8/15	6.3/6.8/15	8.4/8.9/15

CONDENSER WATER

Requirements

65° F entering fluid temperature	GPM	7	10	12	16
	PD - PSI	1.9	2.1	2.3	3.6
75° F entering fluid temperature	GPM	11	15	19	21
	PD - PSI	2.8	3.4	3.7	4.8
85° F entering fluid temperature	GPM	16	21	26	34
	PD - PSI	3.2	4.0	5.3	6.6
With Fluid Cooler	GPM	21	28	35	46
	PD in PSI	5.9	7.7	10.3	13.8

(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.)

* W - WATER COOLED G - GLYCOL COOLED

FLA - Full load amps

MCA - Minimum circuit amps (wire sizing amps)

MOP - Maximum Rating of the Overcurrent Protective Device

WATER COOLED: Performance data at OPTIONAL airflow with single compressor

<i>MODEL NUMBER:</i>	<i>DALW</i>	<i>06-P-S</i>	<i>08-P-S</i>	<i>10-P-S</i>	<i>13-P-S</i>
CAPACITY in Btu/hr - gross					
80° DB/67° WB	Total	89,100	116,000	155,000	185,600
50% RH	Sensible	70,900	90,100	120,500	141,500
75° DB/62.5° WB	Total	82,300	106,900	143,300	171,100
50% RH	Sensible	69,700	88,600	118,500	139,000
75° DB/61° WB	Total	79,800	103,800	140,100	166,400
45% RH	Sensible	74,300	94,300	126,600	148,000
72° DB/60° WB	Total	78,000	101,500	137,200	163,100
50% RH	Sensible	68,000	86,500	116,200	136,100
72° DB/58.6° WB	Total	76,500	99,400	133,600	159,000
45% RH	Sensible	72,500	92,100	123,400	144,400

GLYCOL COOLED: Performance data at OPTIONAL airflow with single compressor

<i>MODEL NUMBER:</i>	<i>DALG</i>	<i>06-P-S</i>	<i>08-P-S</i>	<i>10-P-S</i>	<i>13-P-S</i>
CAPACITY in Btu/hr - gross					
80° DB/67° WB	Total	83,900	109,500	146,400	174,600
50% RH	Sensible	69,000	87,700	117,200	137,200
75° DB/62.5° WB	Total	76,900	97,100	134,400	160,900
50% RH	Sensible	67,500	84,500	114,800	134,700
75° DB/61° WB	Total	75,000	97,200	131,400	155,500
45% RH	Sensible	72,300	91,500	122,900	143,300
72° DB/60° WB	Total	73,400	95,000	128,700	152,400
50% RH	Sensible	66,000	83,600	112,500	131,400
72° DB/58.6° WB	Total	71,400	92,300	125,200	149,400
45% RH	Sensible	70,300	88,900	119,600	140,100

-The following sections apply to both Glycol and Water cooled units. -

BLOWER SECTION

Airflow - CFM		3,000	3,600	4,750	5,500
Standard motor - horsepower		2	3	5	5
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.	<i>(Standard Motor)</i>	1.3	1.5	1.5	0.8
Maximum E.S.P.	<i>(Next Size Motor)</i>	1.3	1.5	1.5	0.8
Next size motor - horsepower		3	5	7.5	7.5

COMPRESSOR

Type		Scroll	Scroll	Scroll	Scroll
Quantity		1	1	1	1
Refrigerant type		R-407C	R-407C	R-407C	R-407C

WATER/GLYCOL COOLED: Performance data at OPTIONAL airflow with single compressor

MODEL NUMBER: *DAL** **06-WP-S** **08-WP-S** **10-WP-S** **13-WP-S**

ELECTRICAL SECTION

Standard Motor - continued

Electrical data based on: electric reheat - **NO**, 30 lb/hr steam generator humidifier - **YES**, and STANDARD MOTOR.

208-230/3/60	FLA/MCA/MOP	55/67/70	66/80/100	81/97/125	84/101/125
460/3/60	FLA/MCA/MOP	27/33/40	32/39/50	37/44/50	41/50/60
575/3/60	FLA/MCA/MOP	21/25/30	24/30/35	31/37/50	33/40/50

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

208-230/3/60	FLA/MCA/MOP	69/84/90	79/97/100	94/114/125	97/118/125
460/3/60	FLA/MCA/MOP	33/41/45	38/46/50	43/52/60	47/57/70
575/3/60	FLA/MCA/MOP	26/31/35	29/36/40	36/44/50	38/46/50

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

208-230/3/60	FLA/MCA/MOP	27/32/50	37/44/70	53/62/90	56/66/100
460/3/60	FLA/MCA/MOP	15/17/25	19/23/35	24/28/45	28/34/50
575/3/60	FLA/MCA/MOP	11/13/15	14/17/25	21/25/40	23/27/40

STANDARD MOTOR

Horsepower		3	3	5	5
208-230/3/60	FLA	8.4	8.4	14.8	14.8
460/3/60	FLA	4.2	4.2	6.6	6.6
575/3/60	FLA	3.3	3.3	5.3	5.3

ELECTRICAL SECTION

Next Size Motor

Electrical data based on: electric reheat - **YES**, 10 lb/hr steam generator humidifier - **YES**, and NEXT SIZE MOTOR.

208-230/3/60	FLA/MCA/MOP	75/90/100	85/103/110	99/119/125	103/123/150
460/3/60	FLA/MCA/MOP	36/43/45	40/49/50	46/55/60	51/61/70
575/3/60	FLA/MCA/MOP	28/33/35	31/38/40	39/47/50	41/49/60

Electrical data based on: electric reheat - **YES**, 30 lb/hr steam generator humidifier - **YES**, and NEXT SIZE MOTOR.

208-230/3/60	FLA/MCA/MOP	75/90/100	85/103/110	99/119/125	103/123/150
460/3/60	FLA/MCA/MOP	36/43/45	40/49/50	46/55/60	51/61/70
575/3/60	FLA/MCA/MOP	28/33/35	31/38/40	39/47/50	41/49/60

Electrical data based on: electric reheat - **NO**, 10 lb/hr steam generator humidifier - **YES**, and NEXT SIZE MOTOR.

208-230/3/60	FLA/MCA/MOP	50/58/70	60/71/90	74/88/110	77/92/125
460/3/60	FLA/MCA/MOP	24/29/35	29/34/45	35/41/50	39/47/60
575/3/60	FLA/MCA/MOP	19/22/25	22/26/35	30/35/45	32/38/50

Electrical data based on: electric reheat - **NO**, 30 lb/hr steam generator humidifier - **YES**, and NEXT SIZE MOTOR.

208-230/3/60	FLA/MCA/MOP	62/73/80	72/86/100	86/103/125	89/107/125
460/3/60	FLA/MCA/MOP	30/35/40	34/41/50	40/48/60	45/53/70
575/3/60	FLA/MCA/MOP	23/27/30	26/32/35	34/41/50	36/43/50

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

208-230/3/60	FLA/MCA/MOP	75/90/100	85/103/110	99/119/125	103/123/150
460/3/60	FLA/MCA/MOP	36/43/45	40/49/50	46/55/60	51/61/70
575/3/60	FLA/MCA/MOP	28/33/35	31/38/40	39/47/50	41/49/60

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

208-230/3/60	FLA/MCA/MOP	33/38/50	44/51/70	58/67/100	61/71/110
460/3/60	FLA/MCA/MOP	17/19/25	21/25/35	27/32/45	32/37/50
575/3/60	FLA/MCA/MOP	13/15/20	16/19/25	24/28/40	26/30/45

* W - WATER COOLED G - GLYCOL COOLED

FLA - Full load amps

MCA - Minimum circuit amps (wire sizing amps)

MOP - Maximum Rating of the Overcurrent Protective Device

WATER/GLYCOL COOLED: Performance data at OPTIONAL airflow with single compressor

MODEL NUMBER: *DAL** **06-WP-S** **08-WP-S** **10-WP-S** **13-WP-S**

NEXT SIZE MOTOR

Horsepower		5	5	7.5	7.5
208-230/3/60	FLA	14.8	14.8	20.0	20.0
460/3/60	FLA	6.6	6.6	10.1	10.1
575/3/60	FLA	5.3	5.3	8.6	8.6

COMPRESSOR

208-230/3/60	FLA	18.6	28.8	37.8	41.0
460/3/60	FLA	10.3	14.7	17.2	21.8
575/3/60	FLA	7.4	10.8	15.5	17.3

FLUID COOLER

Fluid cooler at 95° F ambient model number		DAFC-11	DAFC-15	DAFC-21	DAFC-21
208-230/3/60	FLA/MCA/MOP	8.4/9.5/15	8.4/9.5/15	13/14/15	13/14/15
460/3/60	FLA/MCA/MOP	4.2/4.7/15	4.2/4.7/15	6.3/6.8/15	6.3/6.8/15
Fluid cooler at 100° F ambient model number		DAFC-21	DAFC-21	DAFC-28	DAFC-30
208-230/3/60	FLA/MCA/MOP	13/14/15	13/14/15	13/14/15	17/18/20
460/3/60	FLA/MCA/MOP	6.3/6.8/15	6.3/6.8/15	6.3/6.8/15	8.4/8.9/15

CONDENSER WATER

65° F entering fluid temperature	GPM	7	10	12	16
	PD in PSI	1.9	2.1	2.3	3.6
75° F Entering Fluid Temperature	GPM	11	15	19	21
	PD in PSI	2.8	3.4	3.7	4.8
85° F Entering Fluid Temperature	GPM	16	21	26	34
	PD in PSI	3.2	4.0	5.3	6.6
With Fluid Cooler	GPM	21	28	35	46
	PD in PSI	5.9	7.7	10.3	13.8

PUMP SELECTION

At design flow

Horsepower	1	1.5	1.5	2
------------	---	-----	-----	---

(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.)

* W - WATER COOLED G - GLYCOL COOLED

FLA - Full load amps

MCA - Minimum circuit amps (wire sizing amps)

MOP - Maximum Rating of the Overcurrent Protective Device

WATER COOLED: Performance data at STANDARD airflow with dual compressors

<i>MODEL NUMBER:</i>	<i>DALW</i>	<i>06-P-D</i>	<i>08-P-D</i>	<i>10-P-D</i>	<i>13-P-D</i>
CAPACITY in Btu/hr - gross					
80° DB/67° WB	Total	87,200	110,500	140,600	173,300
50% RH	Sensible	64,500	80,800	105,600	130,600
75° DB/62.5° WB	Total	79,900	101,600	129,700	160,300
50% RH	Sensible	63,200	79,400	103,900	128,700
75° DB/61° WB	Total	77,600	99,000	125,800	155,900
45% RH	Sensible	67,100	84,400	110,300	136,800
72° DB/60° WB	Total	76,400	96,900	124,000	153,600
50% RH	Sensible	62,000	77,800	101,900	126,300
72° DB/58.6° WB	Total	74,300	94,800	120,600	149,600
45% RH	Sensible	65,700	82,600	107,900	133,900

GLYCOL COOLED: Performance data at STANDARD airflow with dual compressors

<i>MODEL NUMBER:</i>	<i>DALG</i>	<i>06-P-D</i>	<i>08-P-D</i>	<i>10-P-D</i>	<i>13-P-D</i>
CAPACITY in Btu/hr - gross					
80° DB/67° WB	Total	77,500	104,300	132,200	163,100
50% RH	Sensible	60,800	78,400	102,400	126,700
75° DB/62.5° WB	Total	71,000	95,900	122,000	151,000
50% RH	Sensible	59,500	77,000	100,600	124,700
75° DB/61° WB	Total	68,800	92,800	119,100	146,700
45% RH	Sensible	63,300	81,600	107,400	132,800
72° DB/60° WB	Total	67,800	90,800	115,900	143,800
50% RH	Sensible	58,200	75,100	98,300	122,000
72° DB/58.6° WB	Total	66,000	88,900	112,600	140,000
45% RH	Sensible	61,900	79,800	104,300	129,500

-The following sections apply to both Glycol and Water cooled units. -

BLOWER SECTION

Airflow - CFM		2,500	3,000	4,000	5,000
Standard motor - horsepower		2	2	3	5
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.	<i>(Standard Motor)</i>	0.9	1.3	1.4	1.1
Maximum E.S.P.	<i>(Next Size Motor)</i>	0.9	1.3	1.5	1.1
Next size motor - horsepower		3	3	5	7.5

COMPRESSORS

Type		Scroll	Scroll	Scroll	Scroll
Quantity		2	2	2	2
Refrigerant type		R-407C	R-407C	R-407C	R-407C

WATER/GLYCOL COOLED: Performance data at STANDARD airflow with dual compressors

MODEL NUMBER: *DAL** **06-WP-D** **08-WP-D** **10-WP-D** **13-WP-D**

EVAPORATOR COIL

Face area - sq ft		12.2	12.2	12.2	12.2
Rows of coils		3	4	5	5
Face velocity - fpm		205	246	328	410

REHEAT SECTION

Electric		Standard	Standard	Standard	Standard
kW		15	15	15	15
Capacity Btu/hr		51,225	51,225	51,225	51,225

HUMIDIFIER SECTION

Steam generator		Optional	Optional	Optional	Optional
kW		3.4	3.4	3.4	3.4
Capacity - lb/hr	<i>(Adjustable)</i>	10	10	10	10
kW		3.4-10.2	3.4-10.2	3.4-10.2	3.4-10.2
Capacity - lb/hr	<i>(Adjustable)</i>	10-30	10-30	10-30	10-30

FILTER SECTION

Quantity		2	2	2	2
Size - inches		20x25x4	20x25x4	20x25x4	20x25x4
Quantity		2	2	2	2
Size - inches		16x25x4	16x25x4	16x25x4	16x25x4
Efficiency percentage		30	30	30	30

(Note: Efficiency based on ASHRAE Std. 52.1-1992.)

CONNECTION SIZES

Condenser water supply - O.D. Copper		1-5/8	1-5/8	1-5/8	1-5/8
Condenser water return - O.D. Copper		1-5/8	1-5/8	1-5/8	1-5/8
Condensate drain		3/4	3/4	3/4	3/4
Humidifier supply		1/4	1/4	1/4	1/4

ELECTRICAL SECTION

Standard Motor

Electrical data based on: electric reheat - **YES**, 10 lb/hr steam generator humidifier - **YES**, and STANDARD MOTOR.

208-230/3/60	FLA/MCA/MOP	58/71/80	61/75/80	67/82/90	75/90/100
460/3/60	FLA/MCA/MOP	27/33/35	29/36/40	32/39/40	36/43/45
575/3/60	FLA/MCA/MOP	22/27/30	23/29/30	25/31/35	28/33/35

Electrical data based on: electric reheat - **YES**, 30 lb/hr steam generator humidifier - **YES**, and STANDARD MOTOR.

208-230/3/60	FLA/MCA/MOP	58/71/80	61/75/80	71/83/90	80/92/100
460/3/60	FLA/MCA/MOP	27/33/35	29/36/40	35/40/45	40/46/50
575/3/60	FLA/MCA/MOP	22/27/30	23/29/30	28/32/35	30/35/40

Electrical data based on: electric reheat - **NO**, 10 lb/hr steam generator humidifier - **YES**, and STANDARD MOTOR.

208-230/3/60	FLA/MCA/MOP	43/50/60	49/57/60	59/68/80	68/77/90
460/3/60	FLA/MCA/MOP	21/24/25	25/29/30	30/34/40	35/39/45
575/3/60	FLA/MCA/MOP	17/19/20	20/23/25	23/27/30	26/29/35

* *W - Water cooled G - Glycol cooled*

FLA - Full load amps

MCA - Minimum circuit amps (wire sizing amps)

MOP - Maximum Rating of the Overcurrent Protective Device

WATER/GLYCOL COOLED: Performance data at STANDARD airflow with dual compressors

MODEL NUMBER: *DAL** *06-WP-D* *08-WP-D* *10-WP-D* *13-WP-D*

ELECTRICAL SECTION

Standard Motor - *continued*

Electrical data based on: electric reheat - **NO**, 30 lb/hr steam generator humidifier - **YES**, and STANDARD MOTOR.

208-230/3/60	FLA/MCA/MOP	55/65/70	61/72/80	71/83/90	80/92/100
460/3/60	FLA/MCA/MOP	26/30/35	31/36/40	35/40/45	40/46/50
575/3/60	FLA/MCA/MOP	21/25/30	24/28/30	28/32/35	30/35/40

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

208-230/3/60	FLA/MCA/MOP	58/71/80	61/75/80	67/82/90	75/90/100
460/3/60	FLA/MCA/MOP	27/33/35	29/36/40	32/39/40	36/43/45
575/3/60	FLA/MCA/MOP	22/27/30	23/29/30	25/31/35	28/33/35

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

208-230/3/60	FLA/MCA/MOP	27/29/35	33/36/45	43/47/60	52/57/70
460/3/60	FLA/MCA/MOP	13/14/15	18/20/25	22/24/30	27/30/40
575/3/60	FLA/MCA/MOP	11/12/15	14/16/20	18/19/25	20/22/25

STANDARD MOTOR

Horsepower		2	2	3	5
208-230/3/60	FLA	6.0	6.0	8.4	14.8
460/3/60	FLA	3.0	3.0	4.2	6.6
575/3/60	FLA	2.5	2.5	3.3	5.3

ELECTRICAL SECTION

Next Size Motor

Electrical data based on: electric reheat - **YES**, 10 lb/hr steam generator humidifier - **YES**, and NEXT SIZE MOTOR.

208-230/3/60	FLA/MCA/MOP	60/73/80	64/77/80	74/89/90	80/96/100
460/3/60	FLA/MCA/MOP	28/34/35	30/37/40	34/41/45	39/47/50
575/3/60	FLA/MCA/MOP	23/27/30	24/29/30	27/33/35	31/37/40

Electrical data based on: electric reheat - **YES**, 30 lb/hr steam generator humidifier - **YES**, and NEXT SIZE MOTOR.

208-230/3/60	FLA/MCA/MOP	60/73/80	64/77/80	78/89/90	86/98/100
460/3/60	FLA/MCA/MOP	28/34/35	30/37/40	37/43/45	44/49/50
575/3/60	FLA/MCA/MOP	23/27/30	24/29/30	30/34/35	34/38/40

Electrical data based on: electric reheat - **NO**, 10 lb/hr steam generator humidifier - **YES**, and NEXT SIZE MOTOR.

208-230/3/60	FLA/MCA/MOP	45/52/60	52/59/60	66/74/80	74/83/90
460/3/60	FLA/MCA/MOP	22/25/30	26/30/35	32/36/40	38/43/50
575/3/60	FLA/MCA/MOP	18/20/25	21/24/25	25/29/30	29/33/40

Electrical data based on: electric reheat - **NO**, 30 lb/hr steam generator humidifier - **YES**, and NEXT SIZE MOTOR.

208-230/3/60	FLA/MCA/MOP	57/67/70	64/74/80	78/89/90	86/98/100
460/3/60	FLA/MCA/MOP	27/32/35	32/37/40	37/43/45	44/49/50
575/3/60	FLA/MCA/MOP	22/26/30	25/29/30	30/34/35	34/38/40

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

208-230/3/60	FLA/MCA/MOP	60/73/80	64/77/80	74/89/90	80/96/100
460/3/60	FLA/MCA/MOP	28/34/35	30/37/40	34/41/45	39/47/50
575/3/60	FLA/MCA/MOP	23/27/30	24/29/30	27/33/35	31/37/40

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

208-230/3/60	FLA/MCA/MOP	29/32/35	35/39/50	49/54/70	57/62/80
460/3/60	FLA/MCA/MOP	14/16/20	19/21/25	25/27/35	31/33/40
575/3/60	FLA/MCA/MOP	12/13/15	15/16/20	20/21/25	23/26/30

* *W* - Water cooled *G* - Glycol cooled

FLA - Full load amps

MCA - Minimum circuit amps (wire sizing amps)

MOP - Maximum Rating of the Overcurrent Protective Device

WATER/GLYCOL COOLED: Performance data at STANDARD airflow with dual compressors

MODEL NUMBER: *DAL** **06-WP-D** **08-WP-D** **10-WP-D** **13-WP-D**

NEXT SIZE MOTOR

Horsepower		06-WP-D	08-WP-D	10-WP-D	13-WP-D
208-230/3/60	FLA	3	3	5	7.5
460/3/60	FLA	8.4	8.4	14.8	20.0
575/3/60	FLA	4.2	4.2	6.6	10.1
	FLA	3.3	3.3	5.3	8.6

COMPRESSORS

208-230/3/60	FLA	10.3	13.5	17.3	18.6
460/3/60	FLA	5.1	7.4	9.0	10.3
575/3/60	FLA	4.2	5.8	7.1	7.4

FLUID COOLER

Fluid cooler at 95° F ambient model number		DAFC-11	DAFC-15	DAFC-21	DAFC-21
208-230/3/60	FLA/MCA/MOP	8.4/9.5/15	8.4/9.5/15	13/14/15	13/14/15
460/3/60	FLA/MCA/MOP	4.2/4.7/15	4.2/4.7/15	6.3/6.8/15	6.3/6.8/15
Fluid cooler at 100° F ambient model number		DAFC-21	DAFC-21	DAFC-28	DAFC-30
208-230/3/60	FLA/MCA/MOP	13/14/15	13/14/15	13/14/15	17/18/20
460/3/60	FLA/MCA/MOP	6.3/6.8/15	6.3/6.8/15	6.3/6.8/15	8.4/8.9/15

CONDENSER WATER

65° F entering fluid temperature	GPM	7	10	12	16
	PD in PSI	1.9	2.1	2.3	3.6
75° F entering fluid temperature	GPM	11	15	19	21
	PD in PSI	2.8	3.4	3.7	4.8
85° F entering fluid temperature	GPM	16	21	26	34
	PD in PSI	3.2	4.0	5.3	6.6
With fluid cooler	GPM	21	28	35	46
	PD in PSI	5.9	7.7	10.3	13.8

PUMP SELECTION

at design flow

Horsepower	1	1.5	1.5	2
------------	---	-----	-----	---

(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.)

* W - Water cooled G - Glycol cooled

FLA - Full load amps

MCA - Minimum circuit amps (wire sizing amps)

MOP - Maximum Rating of the Overcurrent Protective Device

WATER COOLED: Performance data at OPTIONAL airflow with dual compressors

MODEL NUMBER:	DALW	06-P-D	08-P-D	10-P-D	13-P-D
CAPACITY in Btu/hr - gross					
80° DB/67° WB	Total	89,600	114,400	144,900	176,400
50% RH	Sensible	71,100	89,500	116,600	137,900
75° DB/62.5° WB	Total	82,600	104,600	133,900	161,400
50% RH	Sensible	69,800	87,600	114,600	135,000
75° DB/61° WB	Total	80,000	102,300	130,000	157,900
45% RH	Sensible	74,400	93,600	122,300	144,300
72° DB/60° WB	Total	78,800	100,000	127,300	155,700
50% RH	Sensible	68,300	85,800	111,900	138,800
72° DB/58.6° WB	Total	76,700	98,000	123,800	151,700
45% RH	Sensible	72,700	91,500	119,000	141,100

GLYCOL COOLED: Performance data at OPTIONAL airflow with dual compressors

MODEL NUMBER:	DALG	06-P-D	08-P-D	10-P-D	13-P-D
CAPACITY in Btu/hr - gross					
80° DB/67° WB	Total	80,100	107,800	136,200	166,400
50% RH	Sensible	67,600	87,100	113,400	134,100
75° DB/62.5° WB	Total	73,300	95,600	125,000	153,200
50% RH	Sensible	66,000	83,900	111,000	131,600
75° DB/61° WB	Total	70,900	95,700	121,200	148,900
45% RH	Sensible	70,600	90,800	118,600	140,500
72° DB/60° WB	Total	69,300	93,500	119,700	145,900
50% RH	Sensible	64,300	83,000	108,600	128,600
72° DB/58.6° WB	Total	67,400	90,900	115,400	142,100
45% RH	Sensible	67,100	88,300	115,300	136,900

-The following sections apply to both Glycol and Water cooled units. -

BLOWER SECTION

Airflow - CFM		3,000	3,600	4,750	5,500
Standard motor - horsepower		2	3	5	5
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)	1.3	1.5	1.5	0.8
Maximum E.S.P.	(Next Size Motor)	1.3	1.5	1.5	0.8
Next size motor - horsepower		3	5	7.5	7.5

COMPRESSORS

Type		Scroll	Scroll	Scroll	Scroll
Quantity		2	2	2	2
Refrigerant type		R-407C	R-407C	R-407C	R-407C

WATER/GLYCOL COOLED: Performance data at OPTIONAL airflow with dual compressors

MODEL NUMBER:	DAL*	06-WP-D	08-WP-D	10-WP-D	13-WP-D
NEXT SIZE MOTOR					
Horsepower		5	5	7.5	7.5
208-230/3/60	FLA	14.8	14.8	20.0	20.0
460/3/60	FLA	6.6	6.6	10.1	10.1
575/3/60	FLA	5.3	5.3	8.6	8.6

COMPRESSORS					
208-230/3/60	FLA	10.3	13.5	17.3	18.6
460/3/60	FLA	5.1	7.4	9.0	10.3
575/3/60	FLA	4.2	5.8	7.1	7.4

FLUID COOLER					
Fluid cooler at 95° F ambient model number		DAFC-11	DAFC-15	DAFC-21	DAFC-21
208-230/3/60	FLA/MCA/MOP	8.4/9.5/15	8.4/9.5/15	13/14/15	13/14/15
460/3/60	FLA/MCA/MOP	4.2/4.7/15	4.2/4.7/15	6.3/6.8/15	6.3/6.8/15
Fluid cooler at 100° F ambient model number		DAFC-21	DAFC-21	DAFC-24	DAFC-30
208-230/3/60	FLA/MCA/MOP	13/14/15	13/14/15	13/14/15	17/18/20
460/3/60	FLA/MCA/MOP	6.3/6.8/15	6.3/6.8/15	6.3/6.8/15	8.4/8.9/15

CONDENSER WATER					
65° F entering fluid temperature	GPM	7	10	12	16
	PD in PSI	1.9	2.1	2.3	3.6
75° F entering fluid temperature	GPM	11	15	19	21
	PD in PSI	2.8	3.4	3.7	4.8
85° F entering fluid temperature	GPM	16	21	26	34
	PD in PSI	3.2	4.0	5.3	6.6
With fluid cooler	GPM	21	28	35	46
	PD in PSI	5.9	7.7	10.3	13.8

PUMP SELECTION					
at design flow					
Horsepower		1	1.5	1.5	2

(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.)

* W - Water cooled G - Glycol cooled

FLA - Full load amps

MCA - Minimum circuit amps (wire sizing amps)

MOP - Maximum Rating of the Overcurrent Protective Device

CHILLED WATER: Performance data at STANDARD airflow

MODEL NUMBER:		DALC-06	DALC-08	DALC-10	DALC-13
CAPACITY in Btu/hr - gross		45°F Entering Chilled Water			
80° DB/67° WB	Total	97,600	126,600	161,900	194,900
50% RH	Sensible	68,700	87,400	113,900	148,100
	Flow rate - GPM	17.0	19.0	20.0	25.0
	Pressure drop - PSI	7.4	8.3	10.1	15.3
75° DB/62.5° WB	Total	73,600	95,900	123,800	150,300
50% RH	Sensible	60,300	76,800	100,800	123,600
	Flow rate - GPM	15.0	17.0	18.0	23.0
	Pressure drop - PSI	5.8	6.8	8.3	13.1
75° DB/61° WB	Total	67,900	88,400	115,300	136,900
45% RH	Sensible	62,000	79,000	104,300	126,100
	Flow rate - GPM	14.0	16.0	17.0	20.0
	Pressure drop - PSI	5.1	6.1	7.4	10.1
72° DB/60° WB	Total	60,900	79,500	103,300	120,700
50% RH	Sensible	54,500	69,500	91,700	109,700
	Flow rate - GPM	13.0	15.0	16.0	18.0
	Pressure drop - PSI	4.5	5.4	6.7	8.3
72° DB/58.6° WB	Total	57,100	73,100	97,600	113,100
45% RH	Sensible	55,800	70,700	94,600	111,500
	Flow rate - GPM	12.0	13.0	15.0	16.0
	Pressure drop - PSI	3.8	4.1	5.9	6.7

BLOWER SECTION

Airflow - CFM		2,500	3,000	4,000	5,000
Standard motor - horsepower		2	2	3	5
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)	0.9	1.3	1.4	1.1
Maximum E.S.P.	(Next Size Motor)	0.9	1.3	1.5	1.1
Next size motor - horsepower		3	3	5	7.5

CHILLED WATER COIL

Face area - sq ft	12.2	12.2	12.2	12.2
Rows of coils	3	4	5	5
Face velocity - FPM	205	246	328	410

CHILLED WATER CONTROL

Design Pressure 400 psi

Control method	On/Off	On/Off	On/Off	On/Off
Valve body	3-Way	3-Way	3-Way	3-Way
Valve CV	10	16	16	16
Valve size - inches	1	1 1/4	1 1/4	1 1/4

REHEAT SECTION

Electric	Standard	Standard	Standard	Standard
kW	15	15	15	15
Capacity in Btu/hr	51,225	51,225	51,225	51,225

CHILLED WATER: Performance data at STANDARD airflow

MODEL NUMBER:	DALC-06	DALC-08	DALC-10	DALC-13
FILTER SECTION				
Quantity	2	2	2	2
Size - inches	20x25x4	20x25x4	20x25x4	20x25x4
Quantity	2	2	2	2
Size - inches	16x25x4	16x25x4	16x25x4	16x25x4
Efficiency - percentage	30	30	30	30

(Note: Efficiency based on ASHRAE Std. 52.1-1992.)

HUMIDIFIER SECTION				
Steam generator	Optional	Optional	Optional	Optional
kW	3.4	3.4	3.4	3.4
Capacity - lb/hr	<i>(Adjustable)</i> 10	10	10	10
kW	3.4-10.2	3.4-10.2	3.4-10.2	3.4-10.2
Capacity - lb/hr	<i>(Adjustable)</i> 10-30	10-30	10-30	10-30

ELECTRICAL SECTION		Standard Motor			
<u>Electrical data based on: electric reheat - YES, 10 lb/hr steam generator humidifier - YES, and STANDARD MOTOR.</u>					
208-230/3/60	FLA/MCA/MOP	48/60/70	48/60/70	50/63/70	56/71/80
460/3/60	FLA/MCA/MOP	22/27/30	22/27/30	23/29/30	25/32/35
575/3/60	FLA/MCA/MOP	18/22/25	18/22/25	18/23/25	20/25/30
<u>Electrical data based on: electric reheat - YES, 30 lb/hr steam generator humidifier - YES, and STANDARD MOTOR.</u>					
208-230/3/60	FLA/MCA/MOP	48/60/70	48/60/70	50/63/70	56/71/80
460/3/60	FLA/MCA/MOP	22/27/30	22/27/30	23/29/30	25/32/35
575/3/60	FLA/MCA/MOP	18/22/25	18/22/25	18/23/25	20/25/30
<u>Electrical data based on: electric reheat - NO, 10 lb/hr steam generator humidifier - YES, and STANDARD MOTOR.</u>					
208-230/3/60	FLA/MCA/MOP	22/28/30	22/28/30	25/31/35	31/39/45
460/3/60	FLA/MCA/MOP	10/13/15	10/13/15	12/14/15	14/17/20
575/3/60	FLA/MCA/MOP	8.4/11/15	8.4/11/15	9.2/12/15	11/14/15
<u>Electrical data based on: electric reheat - NO, 30 lb/hr steam generator humidifier - YES, and STANDARD MOTOR.</u>					
208-230/3/60	FLA/MCA/MOP	34/43/45	34/43/45	37/46/50	43/54/60
460/3/60	FLA/MCA/MOP	16/20/25	16/20/25	17/21/25	19/24/25
575/3/60	FLA/MCA/MOP	13/16/20	13/16/20	14/17/20	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	48/60/70	48/60/70	50/63/70	56/71/80
460/3/60	FLA/MCA/MOP	22/27/30	22/27/30	23/29/30	25/32/35
575/3/60	FLA/MCA/MOP	18/22/25	18/22/25	18/23/25	20/25/30
<u>Electrical data based on: electric reheat - NO, steam generator humidifier - NO, and STANDARD MOTOR.</u>					
208-230/3/60	FLA/MCA/MOP	6.0/7.5/15	6.0/7.5/15	8.4/11/15	15/19/30
460/3/60	FLA/MCA/MOP	3.0/3.8/15	3.0/3.8/15	4.2/5.3/15	6.6/8.3/15
575/3/60	FLA/MCA/MOP	2.5/3.1/15	2.5/3.1/15	3.3/4.1/15	5.3/6.6/15

STANDARD MOTOR					
Horsepower		2	2	3	5
208-230/3/60	FLA	6.0	6.0	8.4	14.8
460/3/60	FLA	3.0	3.0	4.2	6.6
575/3/60	FLA	2.5	2.5	3.3	5.3

FLA - Full load amps

MCA - Minimum circuit amps (wire sizing amps)

MOP - Maximum Rating of the Overcurrent Protective Device

CHILLED WATER: Performance data at STANDARD airflow

MODEL NUMBER: *DALC-06* *DALC-08* *DALC-10* *DALC-13*

ELECTRICAL SECTION

Next Size Motor

Electrical data based on: electric reheat - **YES**, 10 lb/hr steam generator humidifier - **YES**, and NEXT SIZE MOTOR.

208-230/3/60	FLA/MCA/MOP	50/63/70	50/63/70	56/71/80	62/77/80
460/3/60	FLA/MCA/MOP	23/29/30	23/29/30	25/32/35	29/36/40
575/3/60	FLA/MCA/MOP	18/23/25	18/23/25	20/25/30	24/30/35

Electrical data based on: electric reheat - **YES**, 30 lb/hr steam generator humidifier - **YES**, and NEXT SIZE MOTOR.

208-230/3/60	FLA/MCA/MOP	50/63/70	50/63/70	56/71/80	62/77/80
460/3/60	FLA/MCA/MOP	23/29/30	23/29/30	25/32/35	29/36/40
575/3/60	FLA/MCA/MOP	18/23/25	18/23/25	20/25/30	24/30/35

Electrical data based on: electric reheat - **NO**, 10 lb/hr steam generator humidifier - **YES**, and NEXT SIZE MOTOR.

208-230/3/60	FLA/MCA/MOP	25/31/35	25/31/35	31/39/45	36/45/60
460/3/60	FLA/MCA/MOP	12/14/15	12/14/15	14/17/20	17/22/30
575/3/60	FLA/MCA/MOP	9.2/12/15	9.2/12/15	11/14/15	15/18/25

Electrical data based on: electric reheat - **NO**, 30 lb/hr steam generator humidifier - **YES**, and NEXT SIZE MOTOR.

208-230/3/60	FLA/MCA/MOP	37/46/50	37/46/50	43/54/60	48/60/70
460/3/60	FLA/MCA/MOP	17/21/25	17/21/25	19/24/25	23/29/35
575/3/60	FLA/MCA/MOP	14/17/20	14/17/20	16/19/20	19/24/25

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

208-230/3/60	FLA/MCA/MOP	50/63/70	50/63/70	56/71/80	62/77/80
460/3/60	FLA/MCA/MOP	23/29/30	23/29/30	25/32/35	29/36/40
575/3/60	FLA/MCA/MOP	18/23/25	18/23/25	20/25/30	24/30/35

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

208-230/3/60	FLA/MCA/MOP	8.4/11/15	8.4/11/15	15/19/30	20/25/45
460/3/60	FLA/MCA/MOP	4.2/5.3/15	4.2/5.3/15	6.6/8.3/15	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

NEXT SIZE MOTOR

Horsepower		3	3	5	7.5
208-230/3/60	FLA	8.4	8.4	14.8	20.0
460/3/60	FLA	4.2	4.2	6.6	10.1
575/3/60	FLA	3.3	3.3	5.3	8.6

CONNECTION SIZES

Supply - O.D. Copper	1-5/8	1-5/8	1-5/8	1-5/8
Return - O.D. Copper	1-5/8	1-5/8	1-5/8	1-5/8
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 (wire sizing amps)

MOP - Maximum Rating of the Overcurrent Protective Device

CHILLED WATER: Performance data at OPTIONAL airflow

MODEL NUMBER:		DALC-06	DALC-08	DALC-10	DALC-13
CAPACITY in Btu/hr - gross		at 45°F Entering Chilled Water			
80° DB/67° WB	Total	106,700	138,600	175,000	203,600
50% RH	Sensible	77,700	98,900	127,800	148,100
	Flow rate - GPM	17.0	19.0	20.0	25.0
	Pressure drop - PSI	7.4	8.3	10.1	15.3
75° DB/62.5° WB	Total	80,900	105,700	135,000	157,700
50% RH	Sensible	68,500	87,500	113,800	132,200
	Flow rate - GPM	15.0	17.0	18.0	23.0
	Pressure drop - PSI	5.8	6.8	8.3	13.1
75° DB/61° WB	Total	75,200	98,400	126,900	144,300
45% RH	Sensible	70,500	90,300	118,000	134,800
	Flow rate - GPM	14.0	16.0	17.0	20.0
	Pressure drop - PSI	5.1	6.1	7.4	10.1
72° DB/60° WB	Total	67,100	88,100	113,100	126,800
50% RH	Sensible	61,800	79,300	103,400	117,000
	Flow rate - GPM	13.0	15.0	16.0	18.0
	Pressure drop - PSI	4.5	5.4	6.7	8.3
72° DB/58.6° WB	Total	63,600	81,700	107,900	119,200
45% RH	Sensible	63,000	80,300	106,300	118,300
	Flow rate - GPM	12.0	13.0	15.0	16.0
	Pressure drop - PSI	3.8	4.1	5.9	6.7

BLOWER SECTION

Airflow - CFM		3,000	3,600	4,750	5,500
Standard motor - horsepower		2	3	5	5
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)	1.3	1.5	1.5	0.8
Maximum E.S.P.	(Next Size Motor)	1.3	1.5	1.5	0.8
Next size motor - horsepower		3	5	7.5	7.5

CHILLED WATER COIL

Face are - sq ft	12.2	12.2	12.2	12.2
Rows of coils	3	4	5	5
Face velocity - fpm	246	295	389	451

CHILLED WATER CONTROL

Design pressure 400 psi

Control method	On/Off	On/Off	On/Off	On/Off
Valve body	3-way	3-way	3-way	3-way
Valve CV	10	16	16	16
Valve size - inches	1	1 1/4	1 1/4	1 1/4

REHEAT SECTION

Electric	Standard	Standard	Standard	Standard
kW	15	15	15	15
Capacity - Btu/hr	51,225	51,225	51,225	51,225

CHILLED WATER: Performance data at OPTIONAL airflow

MODEL NUMBER: *DALC-06* *DALC-08* *DALC-10* *DALC-13*

FILTER SECTION

Quantity		2	2	2	2
Size - inches		20x25x4	20x25x4	20x25x4	20x25x4
Quantity		2	2	2	2
Size - inches		16x25x4	16x25x4	16x25x4	16x25x4
Efficiency - Percentage		30	30	30	30

(Note: Efficiency based on ASHRAE Std. 52.1-1992.)

HUMIDIFIER SECTION

Steam generator		Optional	Optional	Optional	Optional
kW		3.4	3.4	3.4	3.4
Capacity - lb/hr	<i>(Adjustable)</i>	10	10	10	10
kW		3.4-10.2	3.4-10.2	3.4-10.2	3.4-10.2
Capacity - lb/hr	<i>(Adjustable)</i>	10-30	10-30	10-30	10-30

ELECTRICAL SECTION

Standard Motor

Electrical data based on: electric reheat - **YES**, 10 lb/hr steam generator humidifier - **YES**, and STANDARD MOTOR.

208-230/3/60	FLA/MCA/MOP	50/63/70	50/63/70	56/71/80	56/71/80
460/3/60	FLA/MCA/MOP	23/29/30	23/29/30	25/32/35	25/32/35
575/3/60	FLA/MCA/MOP	18/23/25	18/23/25	20/25/30	20/25/30

Electrical data based on: electric reheat - **YES**, 30 lb/hr steam generator humidifier - **YES**, and STANDARD MOTOR.

208-230/3/60	FLA/MCA/MOP	50/63/70	50/63/70	56/71/80	56/71/80
460/3/60	FLA/MCA/MOP	23/29/30	23/29/30	25/32/35	25/32/35
575/3/60	FLA/MCA/MOP	18/23/25	18/23/25	20/25/30	20/25/30

Electrical data based on: electric reheat - **NO**, 10 lb/hr steam generator humidifier - **YES**, and STANDARD MOTOR.

208-230/3/60	FLA/MCA/MOP	25/31/35	25/31/35	31/39/45	31/39/45
460/3/60	FLA/MCA/MOP	12/14/15	12/14/15	14/17/20	14/17/20
575/3/60	FLA/MCA/MOP	9.2/12/15	9.2/12/15	11/14/15	11/14/15

Electrical data based on: electric reheat - **NO**, 30 lb/hr steam generator humidifier - **YES**, and STANDARD MOTOR.

208-230/3/60	FLA/MCA/MOP	37/46/50	37/46/50	43/54/60	43/54/60
460/3/60	FLA/MCA/MOP	17/21/25	17/21/25	19/24/25	19/24/25
575/3/60	FLA/MCA/MOP	14/17/20	14/17/20	16/19/20	16/19/20

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

208-230/3/60	FLA/MCA/MOP	50/63/70	50/63/70	56/71/80	56/71/80
460/3/60	FLA/MCA/MOP	23/29/30	23/29/30	25/32/35	25/32/35
575/3/60	FLA/MCA/MOP	18/23/25	18/23/25	20/25/30	20/25/30

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

208-230/3/60	FLA/MCA/MOP	8.4/11/15	8.4/11/15	15/19/30	15/19/30
460/3/60	FLA/MCA/MOP	4.2/5.3/15	4.2/5.3/15	6.6/8.3/15	6.6/8.3/15
575/3/60	FLA/MCA/MOP	3.3/4.1/15	3.3/4.1/15	5.3/6.6/15	5.3/6.6/15

STANDARD MOTOR

Horsepower		3	3	5	5
208-230/3/60	FLA	8.4	8.4	14.8	14.8
460/3/60	FLA	4.2	4.2	6.6	6.6
575/3/60	FLA	3.3	3.3	5.3	5.3

FLA - Full load amps

MCA - Minimum circuit amps (wire sizing amps)

MOP - Maximum Rating of the Overcurrent Protective Device

CHILLED WATER: Performance data at OPTIONAL airflow

MODEL NUMBER: *DALC-06* *DALC-08* *DALC-10* *DALC-13*

ELECTRICAL SECTION

Next Size Motor

Electrical data based on: electric reheat - **YES**, 10 lb/hr steam generator humidifier - **YES**, and NEXT SIZE MOTOR.

208-230/3/60	FLA/MCA/MOP	56/71/80	56/71/80	62/77/80	62/77/80
460/3/60	FLA/MCA/MOP	25/32/35	25/32/35	29/36/40	29/36/40
575/3/60	FLA/MCA/MOP	20/25/30	20/25/30	24/30/35	24/30/35

Electrical data based on: electric reheat - **YES**, 30 lb/hr steam generator humidifier - **YES**, and NEXT SIZE MOTOR.

208-230/3/60	FLA/MCA/MOP	56/71/80	56/71/80	62/77/80	62/77/80
460/3/60	FLA/MCA/MOP	25/32/35	25/32/35	29/36/40	29/36/40
575/3/60	FLA/MCA/MOP	20/25/30	20/25/30	24/30/35	24/30/35

Electrical data based on: electric reheat - **NO**, 10 lb/hr steam generator humidifier - **YES**, and NEXT SIZE MOTOR.

208-230/3/60	FLA/MCA/MOP	31/39/45	31/39/45	36/45/60	36/45/60
460/3/60	FLA/MCA/MOP	14/17/20	14/17/20	17/22/30	17/22/30
575/3/60	FLA/MCA/MOP	11/14/15	11/14/15	15/18/25	15/18/25

Electrical data based on: electric reheat - **NO**, 30 lb/hr steam generator humidifier - **YES**, and NEXT SIZE MOTOR.

208-230/3/60	FLA/MCA/MOP	43/54/60	43/54/60	48/60/70	48/60/70
460/3/60	FLA/MCA/MOP	19/24/25	19/24/25	23/29/35	23/29/35
575/3/60	FLA/MCA/MOP	16/19/20	16/19/20	19/24/25	19/24/25

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

208-230/3/60	FLA/MCA/MOP	56/71/80	56/71/80	62/77/80	62/77/80
460/3/60	FLA/MCA/MOP	25/32/35	25/32/35	29/36/40	29/36/40
575/3/60	FLA/MCA/MOP	20/25/30	20/25/30	24/30/35	24/30/35

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

208-230/3/60	FLA/MCA/MOP	15/19/30	15/19/30	20/25/45	20/25/45
460/3/60	FLA/MCA/MOP	6.6/8.3/15	6.6/8.3/15	10/13/20	10/13/20
575/3/60	FLA/MCA/MOP	5.3/6.6/15	5.3/6.6/15	8.6/11/15	8.6/11/15

NEXT SIZE MOTOR

Horsepower		5	5	7.5	7.5
208-230/3/60	FLA	14.8	14.8	20.0	20.0
460/3/60	FLA	6.6	6.6	10.1	10.1
575/3/60	FLA	5.3	5.3	8.6	8.6

CONNECTION SIZES

Supply - O.D. Copper		1-5/8	1-5/8	1-5/8	1-5/8
Return - O.D. Copper		1-5/8	1-5/8	1-5/8	1-5/8
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 (wire sizing amps)

MOP - Maximum Rating of the Overcurrent Protective Device

LCS - Dimensional and weight data - evaporator section

AIR COOLED with SINGLE COMPRESSOR

Model	Length	Width	Height	Operating Weight	Shipping Weight
DALA-06xx-CO-S	72.00	48.00	28.50	855	975 lbs
DALA-08xx-CO-S	72.00	48.00	28.50	955	1,075 lbs
DALA-10xx-CO-S	72.00	48.00	28.50	980	1,100 lbs
DALA-13xx-CO-S	72.00	48.00	28.50	1,015	1,135 lbs

AIR COOLED with DUAL COMPRESSORS

(using remote air cooled condenser)

Model	Length	Width	Height	Operating Weight	Shipping Weight
DALA-06xx-CO-D	72.00	48.00	28.50	890	1,010 lbs
DALA-08xx-CO-D	72.00	48.00	28.50	915	1,035 lbs
DALA-10xx-CO-D	72.00	48.00	28.50	990	1,110 lbs
DALA-13xx-CO-D	72.00	48.00	28.50	1025	1,145 lbs

AIR COOLED with SINGLE COMPRESSOR

(using outdoor condensing unit)

Model	Length	Width	Height	Operating Weight	Shipping Weight
DALA-06xx-AO-S	72.00	48.00	28.50	755	875 lbs
DALA-08xx-AO-S	72.00	48.00	28.50	850	970 lbs
DALA-10xx-AO-S	72.00	48.00	28.50	950	1,070 lbs
DALA-13xx-AO-S	72.00	48.00	28.50	980	1,100 lbs

AIR COOLED with DUAL COMPRESSORS

(using outdoor condensing unit)

Model	Length	Width	Height	Operating Weight	Shipping Weight
DALA-06xx-AO-D	72.00	48.00	28.50	790	910 lbs
DALA-08xx-AO-D	72.00	48.00	28.50	885	1,005 lbs
DALA-10xx-AO-D	72.00	48.00	28.50	985	1,140 lbs
DALA-13xx-AO-D	72.00	48.00	28.50	1,015	1,135 lbs

For remote air cooled condenser and condensing unit dimensions and weights, see drawings on pages 64 - 70.

LCS - dimensional and weight data - evaporator section

WATER/GLYCOL COOLED with SINGLE COMPRESSOR

Model	Length	Width	Height	Operating Weight	Shipping Weight
DAL*-06xx-WP-S	72.00	48.00	28.50	1,005	1,125 lbs
DAL*-08xx-WP-S	72.00	48.00	28.50	1,105	1,225 lbs
DAL*-10xx-WP-S	72.00	48.00	28.50	1,160	1,280 lbs
DAL*-13xx-WP-S	72.00	48.00	28.50	1,205	1,325 lbs

WATER/GLYCOL COOLED with DUAL COMPRESSORS

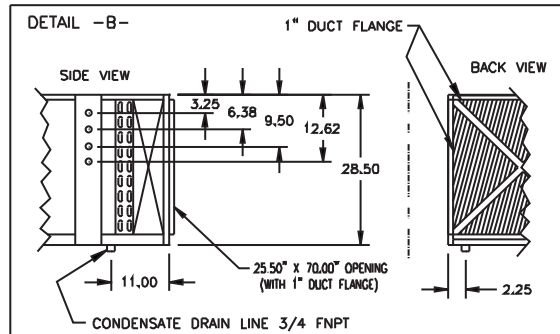
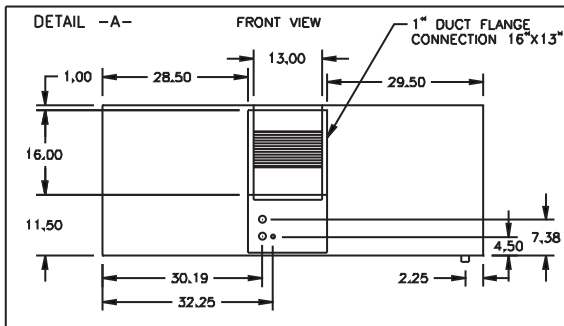
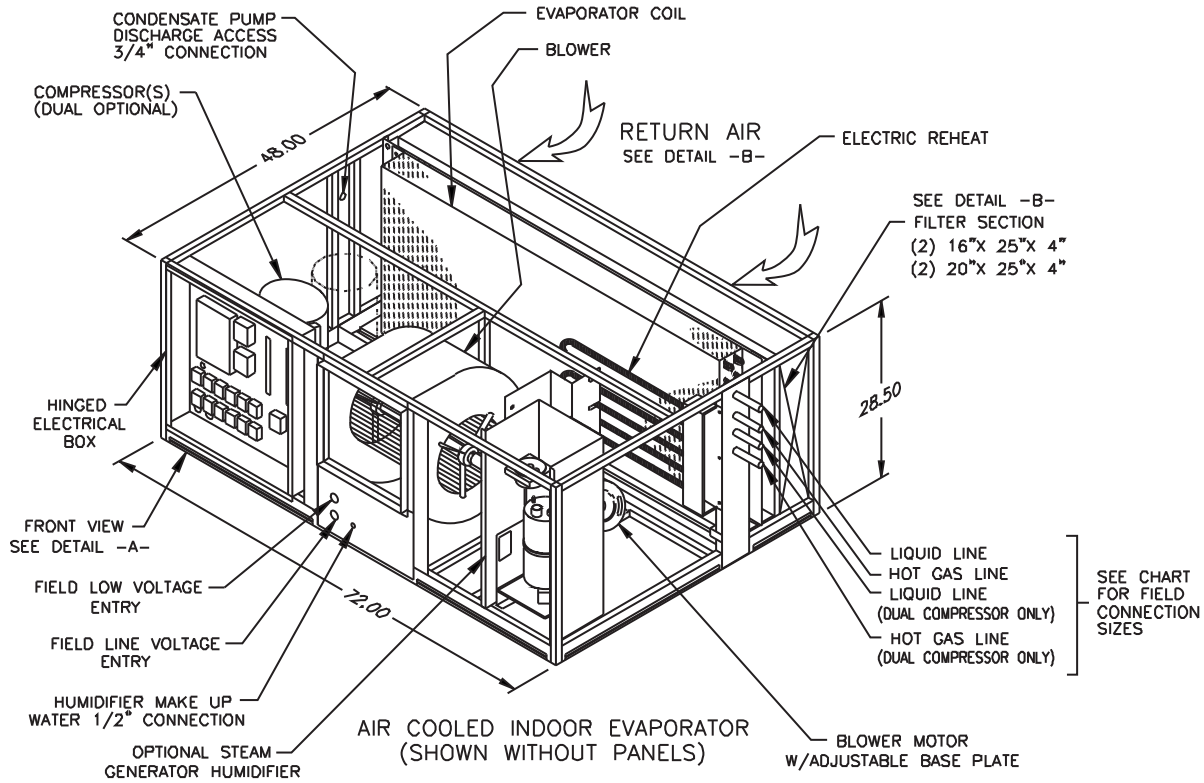
Model	Length	Width	Height	Operating Weight	Shipping Weight
DAL*-06xx-WP-D	72.00	48.00	28.50	1,040	1,160 lbs
DAL*-08xx-WP-D	72.00	48.00	28.50	1,080	1,200 lbs
DAL*-10xx-WP-D	72.00	48.00	28.50	1,130	1,250 lbs
DAL*-13xx-WP-D	72.00	48.00	28.50	1,175	1,295 lbs

CHILLED WATER

Model	Length	Width	Height	Operating Weight	Shipping Weight
DALC-06xx	72.00	48.00	28.50	550	670 lbs
DALC-08xx	72.00	48.00	28.50	570	690 lbs
DALC-10xx	72.00	48.00	28.50	630	750 lbs
DALC-13xx	72.00	48.00	28.50	660	780 lbs

* W - Water cooled G - Glycol cooled

Air cooled indoor ceiling unit evaporated section 6-13 ton

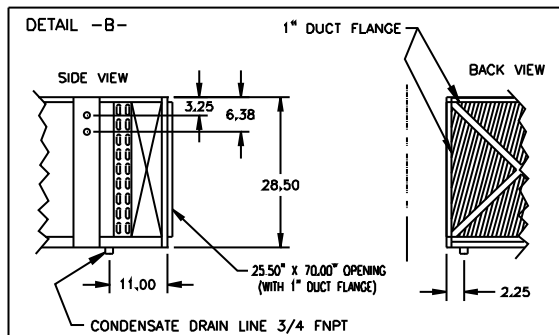
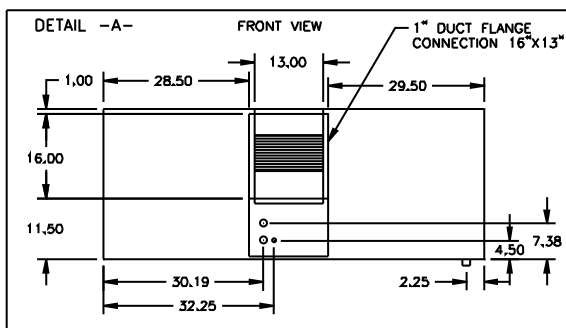
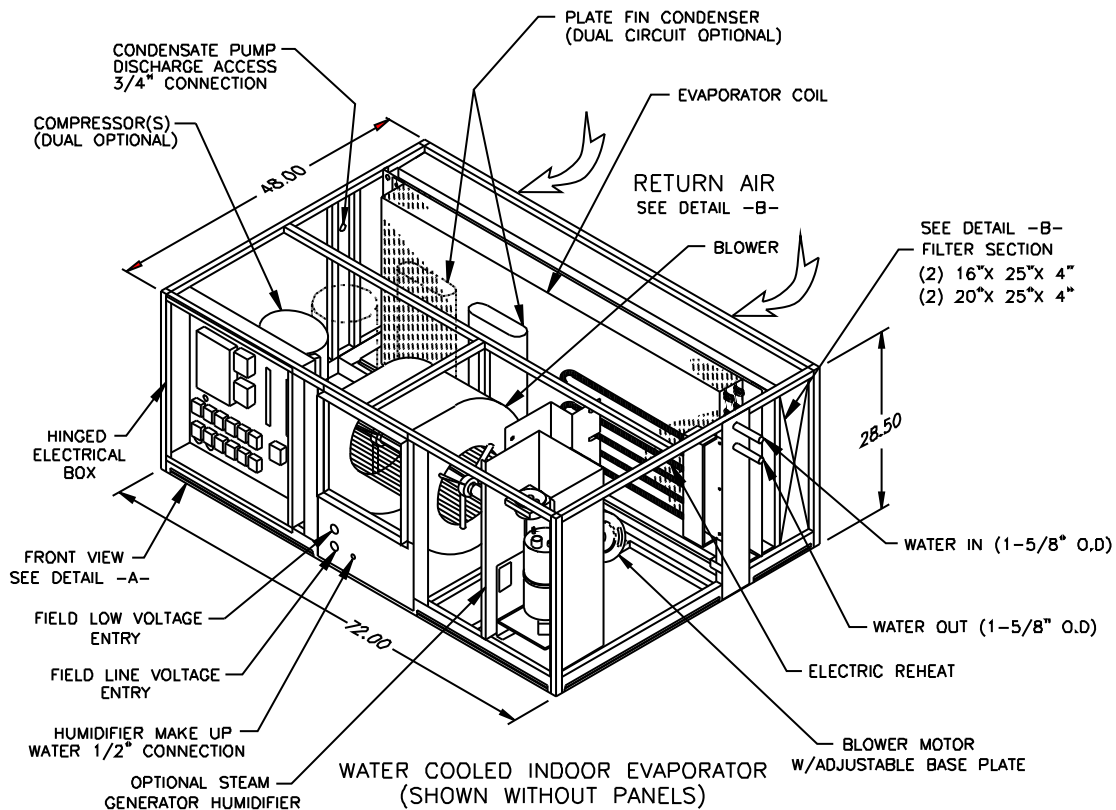


PIPING CHART			
UNIT SIZE	MODEL TYPE	LIQUID LINE	HOT GAS LINE
6 TON	SINGLE	1/2" O.D.	1/2" O.D.
	DUAL	1/2" O.D.	1/2" O.D.
8 TON	SINGLE	5/8" O.D.	3/4" O.D.
	DUAL	1/2" O.D.	1/2" O.D.
10 TON	SINGLE	5/8" O.D.	3/4" O.D.
	DUAL	1/2" O.D.	1/2" O.D.
13 TON	SINGLE	5/8" O.D.	3/4" O.D.
	DUAL	1/2" O.D.	1/2" O.D.

NOTES:

1. FACTORY RECOMMENDED CLEARANCES ARE 24" OF OPEN SPACE AT THE FRONT AND SIDES OF THE UNIT, WHICH ARE MINIMUM CLEARANCE. REQUIRED CONSULT LOCAL BUILDING CODES AND NEC REQUIREMENTS FOR ADDITIONAL CLEARANCE REQUIREMENTS

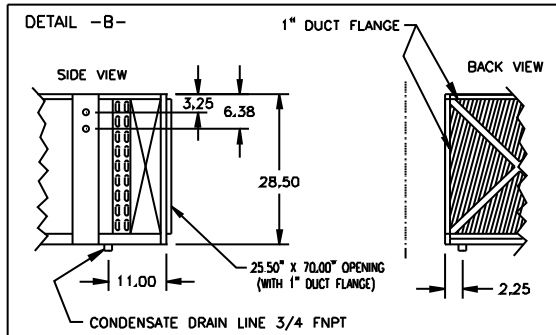
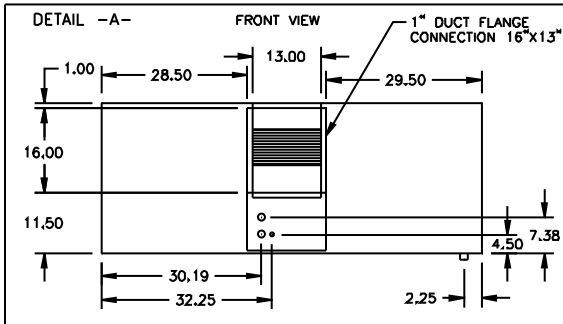
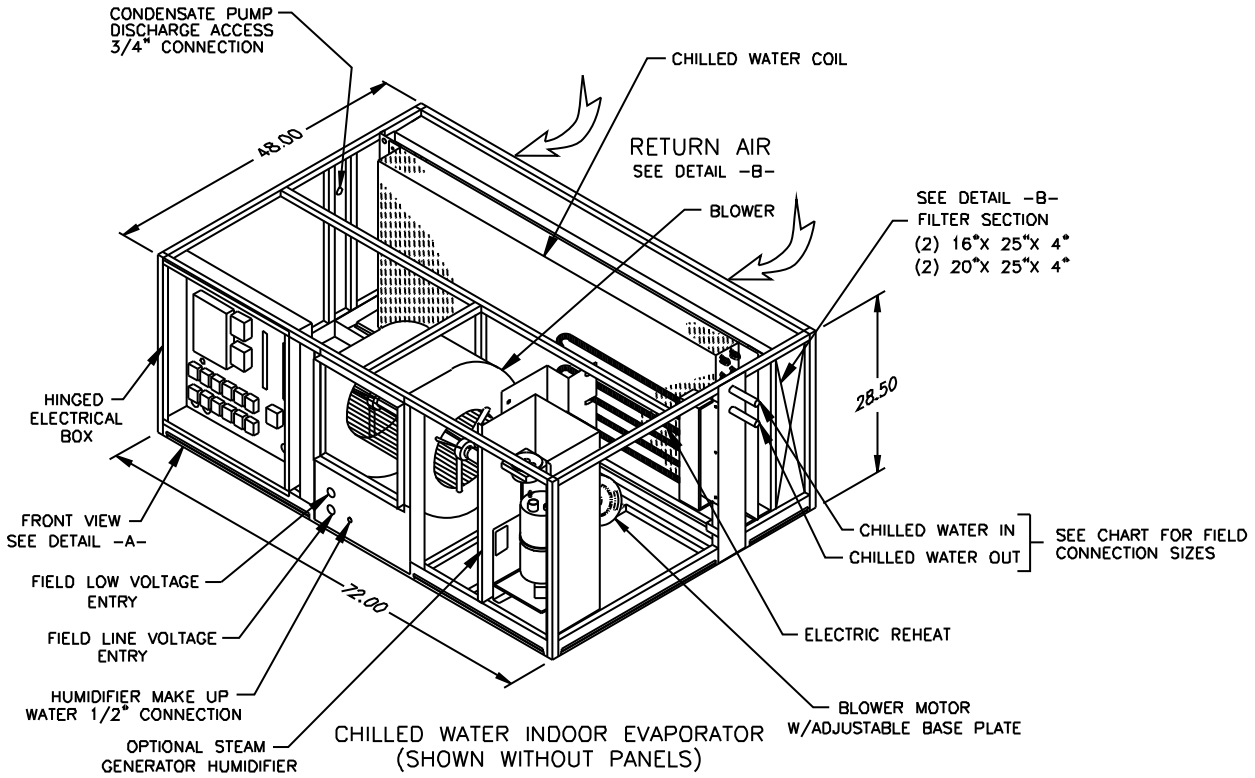
Water cooled indoor ceiling unit evaporator section 6-13 ton



NOTES:

1. FACTORY RECOMMENDED CLEARANCES ARE 24" OF OPEN SPACE AT THE FRONT AND SIDES OF THE UNIT, WHICH ARE MINIMUM CLEARANCE REQUIRED CONSULT LOCAL BUILDING CODES AND NEC REQUIREMENTS FOR ADDITIONAL CLEARANCE REQUIREMENTS

Chilled water section 6-13 ton

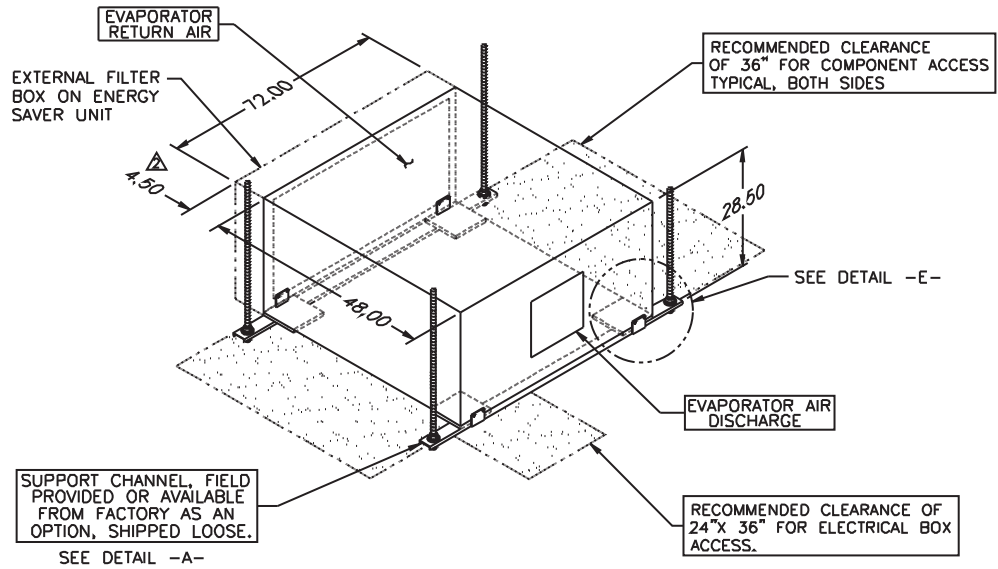


PIPING CHART		
UNIT SIZE	WATER IN	WATER OUT
6 TON	1-1/8" O.D.	1-1/8" O.D.
8 TON	1-5/8" O.D.	1-5/8" O.D.
10 TON	1-5/8" O.D.	1-5/8" O.D.
13 TON	1-5/8" O.D.	1-5/8" O.D.

NOTES:

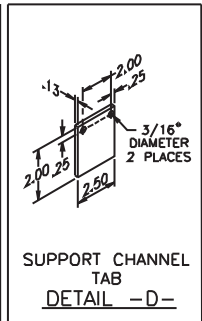
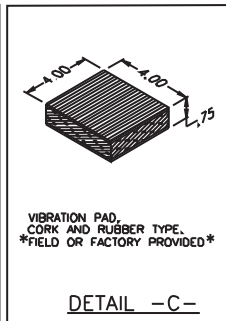
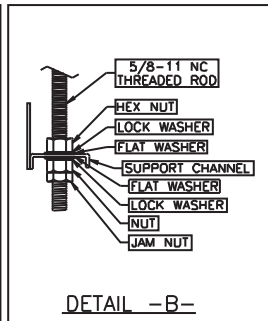
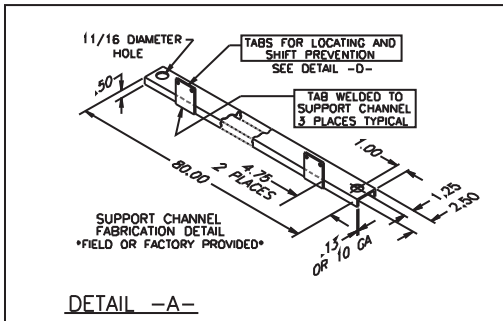
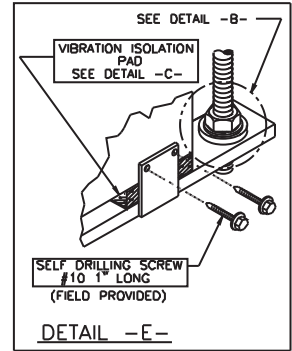
- FACTORY RECOMMENDED CLEARANCES ARE 24" OF OPEN SPACE AT THE FRONT AND SIDES OF THE UNIT, WHICH ARE MINIMUM CLEARANCE REQUIRED CONSULT LOCAL BUILDING CODES AND NEC REQUIREMENTS FOR ADDITIONAL CLEARANCE REQUIREMENTS

LCS unit - typical mounting for 6-13 ton

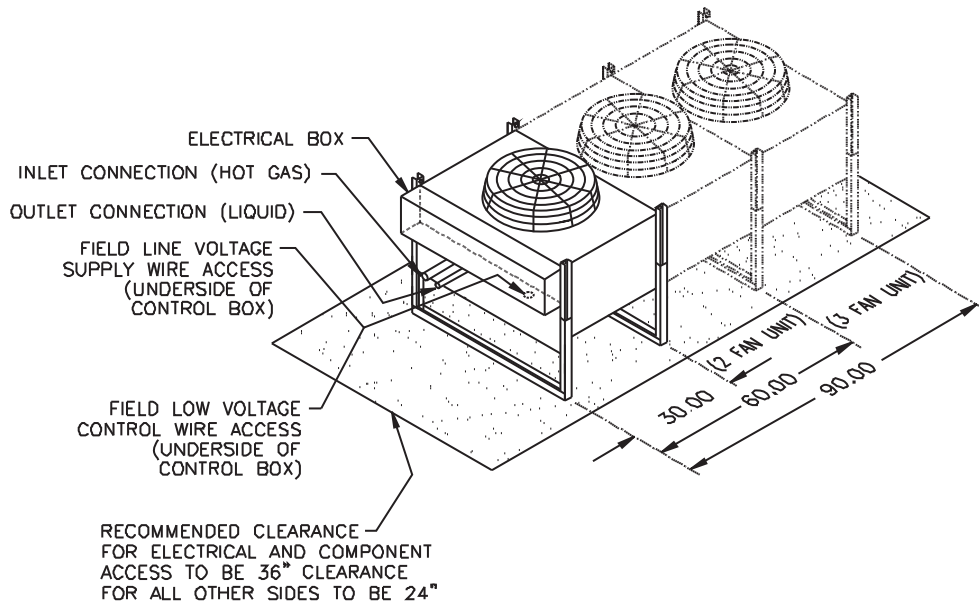


NOTE:
1. UNIT MUST BE LEVEL WHEN INSTALLATION IS COMPLETE.

△ = ADD AN ADDITIONAL 4 1/2" FOR ENERGY SAVER UNITS

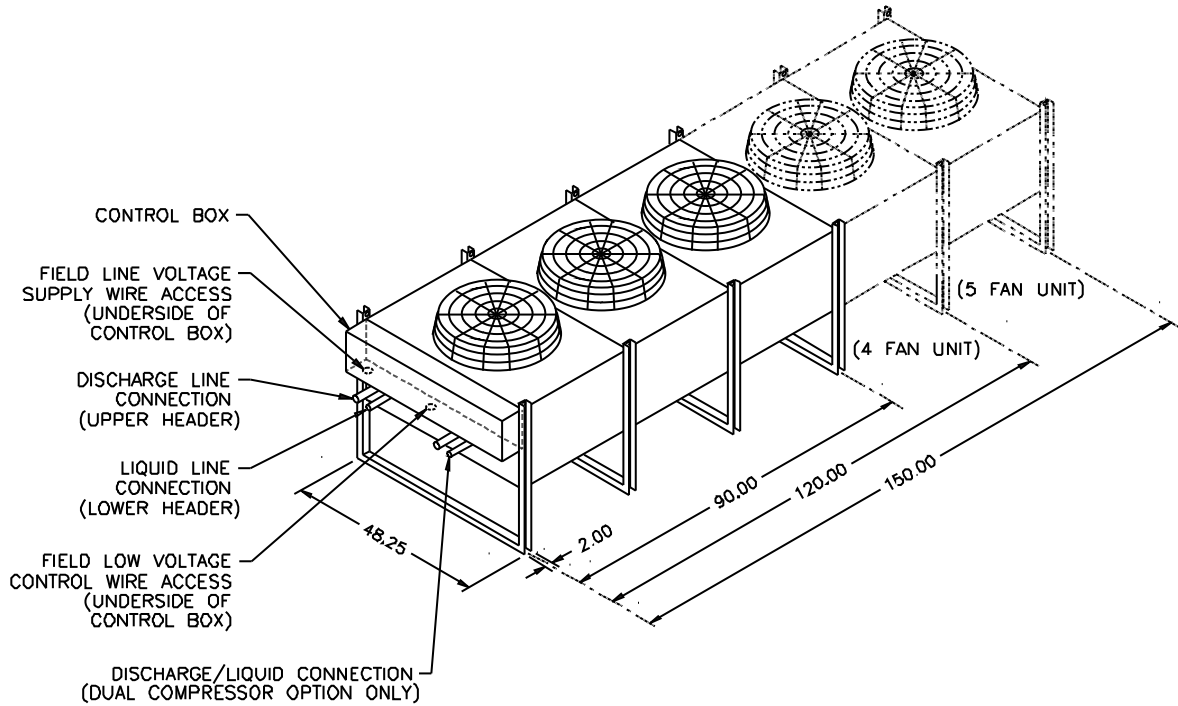


Air cooled condenser - single circuit



MODEL NUMBER	LENGTH	UNIT NET WT. #	PIPE CONNECTION SIZES (COPPER STUB.OD)		QTY, MOTORS	STANDARD CONDENSER				LOW DECIBEL CONDENSER					
			HOT GAS	LIQUID		H.P.	RPM	TOTAL CFM	MOTOR FLA		H.P.	RPM	TOTAL CFM	MOTOR FLA	
									208/230V	460V				208/230V	460V
DARC 06	32-1/4"	220	1-1/8	7/8	1	3/4	1075	5000	4.2	2.1	1/2	850	4000	3.2	1.6
DARC 07	32-1/4"	250	1-1/8	7/8	1	3/4	1075	4900	4.2	2.1	1/2	850	3900	3.2	1.6
DARC 09	32-1/4"	270	1-1/8	7/8	1	3/4	1075	4800	4.2	2.1	1/2	850	3800	3.2	1.6
DARC 11	62-1/4"	300	1-1/8	7/8	2	3/4	1075	10400	8.4	4.2	1/2	850	8300	6.4	3.2
DARC 15	62-1/4"	310	1-1/8	7/8	2	3/4	1075	10000	8.4	4.2	1/2	850	8000	6.4	3.2
DARC 17	62-1/4"	320	1-3/8	7/8	2	3/4	1075	9800	8.4	4.2	1/2	850	7800	6.4	3.2
DARC 21	92-1/4"	450	1-1/8	7/8	3	3/4	1075	15000	12.6	6.3	1/2	850	12000	9.6	4.8

Dual circuit condensers - DARC model 21 thru 50



PHYSICAL DATA

MODEL NUMBER	LENGTH	FANS		UNIT NET WT., #
		QTY	TOTAL CFM	
DARC 21	92-1/4"	3	15000	510
DARC 24	92-1/4"	3	14750	560
DARC 28	92-1/4"	3	14500	630
DARC 30	122-1/4"	4	20000	680
DARC 37	122-1/4"	4	19500	740
DARC 40	122-1/4"	4	19000	800
DARC 44	152-1/4"	5	24500	925
DARC 50	152-1/4"	5	24000	1000

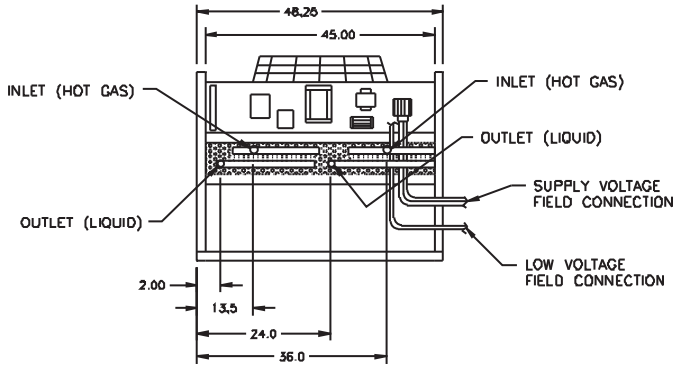
ELECTRICAL DATA

MODEL NUMBER	QTY MOTORS	H.P.	RPM	MOTOR FLA	
				208/230V	460V
DARC 21	3	3/4	1075	12.6	6.3
DARC 24	3	3/4	1075	12.6	6.3
DARC 28	3	3/4	1075	12.6	6.3
DARC 30	4	3/4	1075	16.8	8.4
DARC 37	4	3/4	1075	16.8	8.4
DARC 40	4	3/4	1075	16.8	8.4
DARC 44	5	3/4	1075	21.0	10.5
DARC 50	5	3/4	1075	21.0	10.5

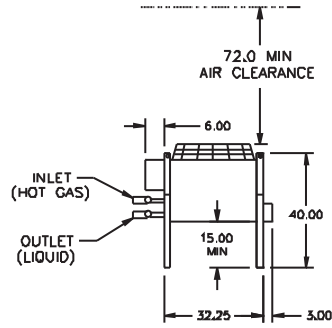
PIPING SIZES

MODEL NUMBER	INLET (DIA STUB)	OUTLET (DIA STUB)
DARC 21	1-1/8"	7/8"
DARC 24	1-3/8"	7/8"
DARC 28	1-3/8"	7/8"
DARC 30	1-3/8"	7/8"
DARC 37	1-5/8"	1-1/8"
DARC 40	1-5/8"	1-1/8"
DARC 44	1-5/8"	1-1/8"
DARC 50	1-5/8"	1-1/8"

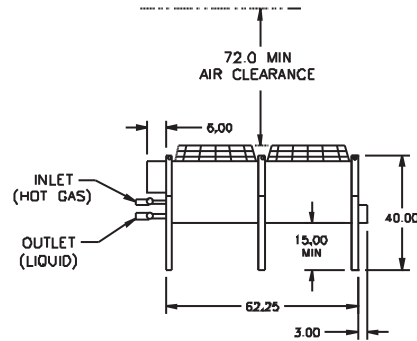
Air cooled condensers - DARC 06-50 dual circuit



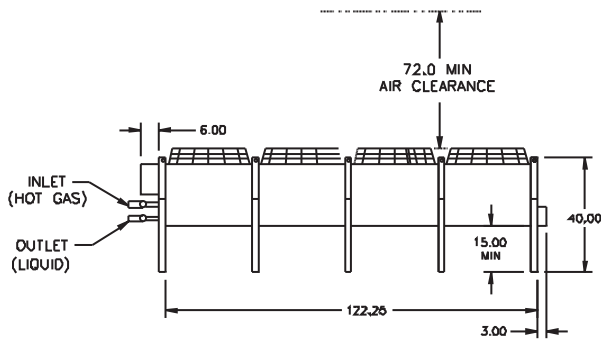
DUAL CIRCUIT CONNECTION LOCATION



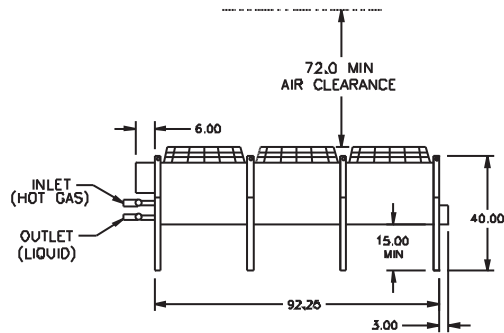
1 FAN UNIT, MODEL 6 THRU 9



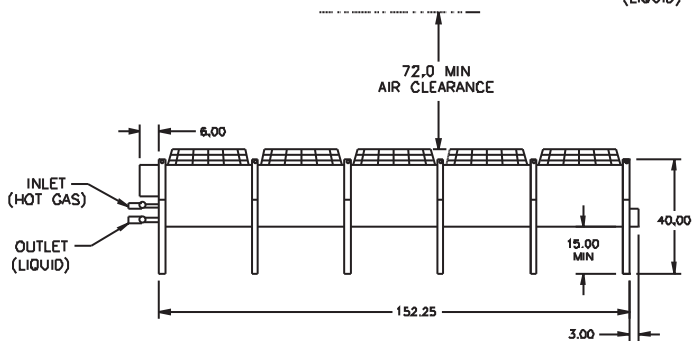
2 FAN UNIT, MODEL 11 THRU 17



4 FAN UNIT, MODEL 30 THRU 40

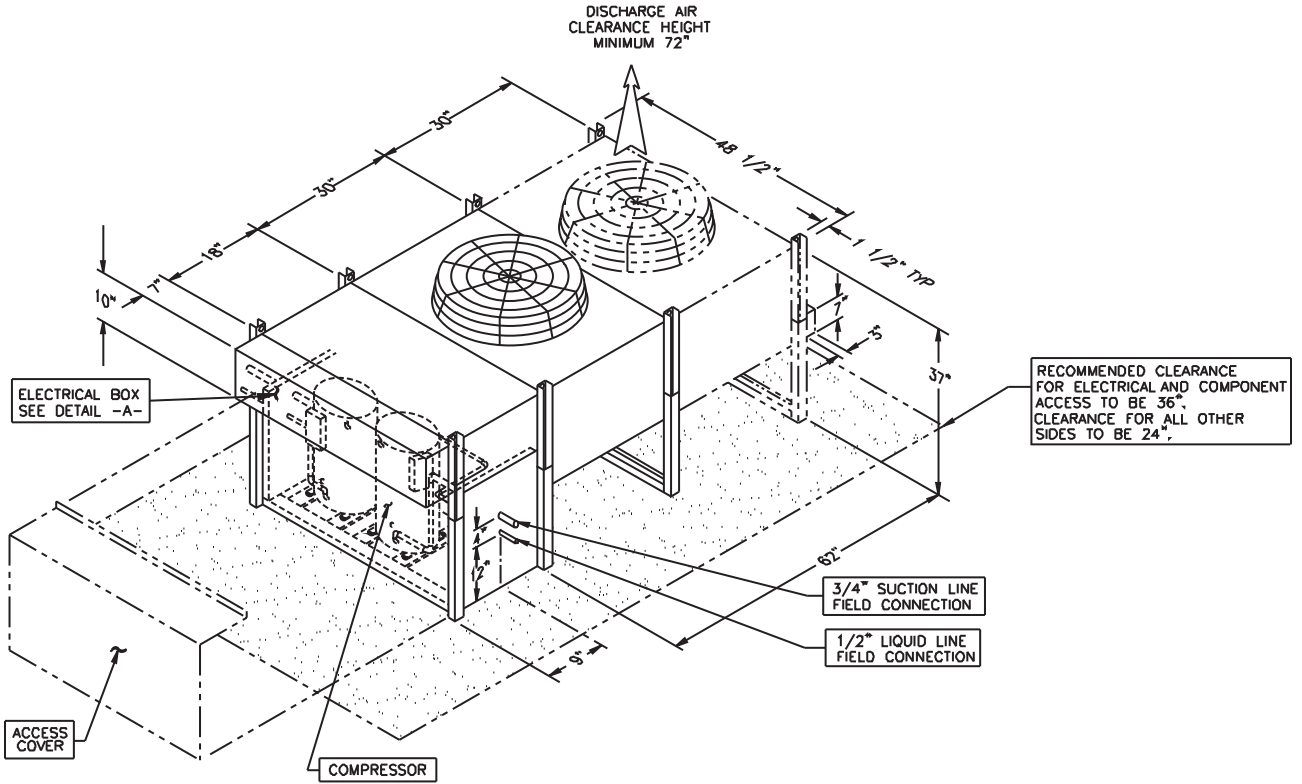


3 FAN UNIT, MODEL 21 THRU 28



5 FAN UNIT, MODEL 44 THRU 50

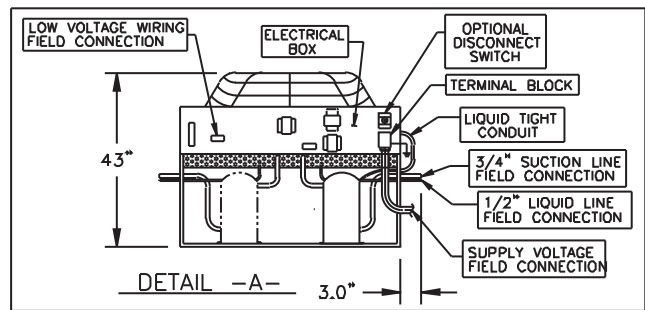
Remote condensing unit with dual 3-5 ton compressor(s)



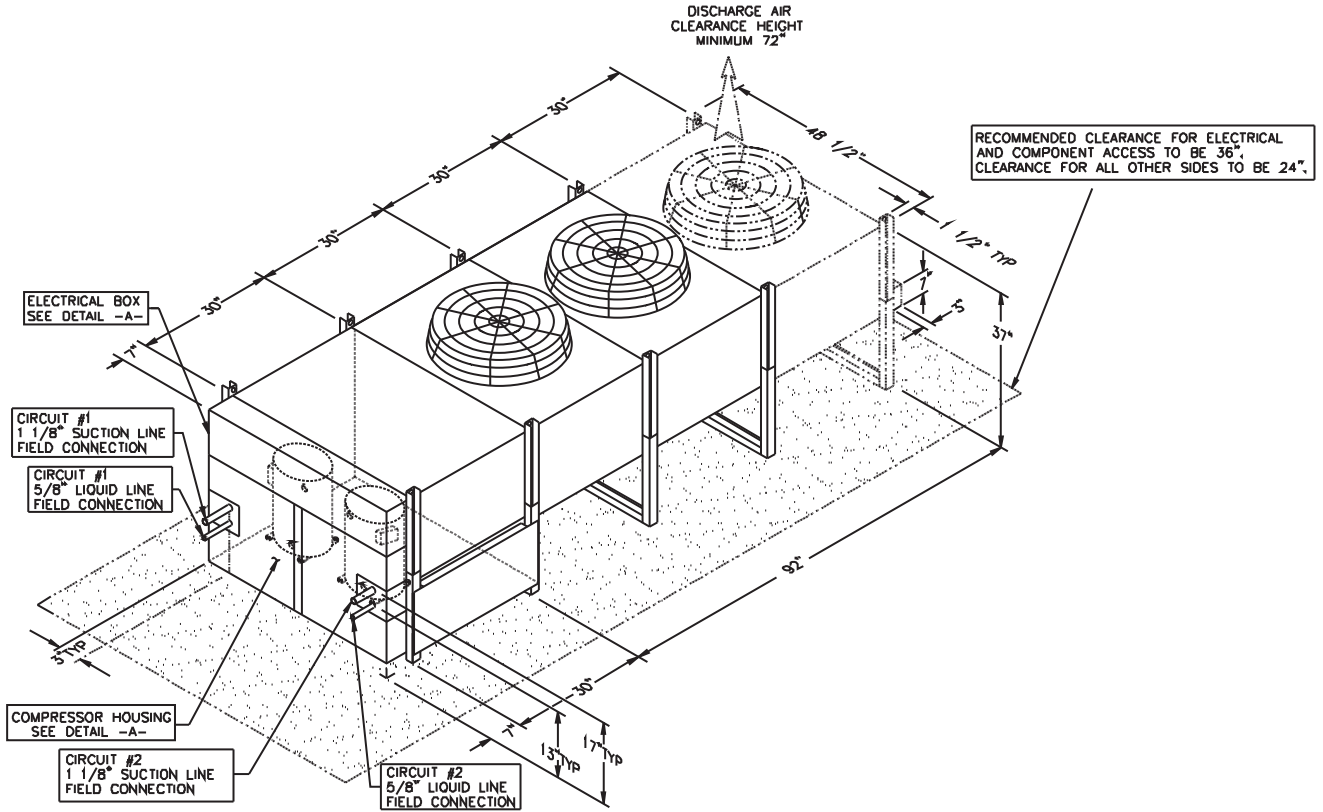
MODEL NO.	OPERATING WEIGHT		NUMBER OF FANS
	SINGLE COMPRESSOR	DUAL COMPRESSOR	
DRCU 06	370 LBS	415 LBS	1
DRCU 07	395 LBS	440 LBS	1
DRCU 09	420 LBS	515 LBS	1
DRCU 11	490 LBS	590 LBS	2
DRCU 15	520 LBS	620 LBS	2
DRCU 17	550 LBS	650 LBS	2

NOTES:

1. CONNECTIONS SIZES ARE NOT NECESSARILY THE RECOMMENDED FIELD PIPING SIZED,
2. EVAPORATOR SECTION NOT SHOWN



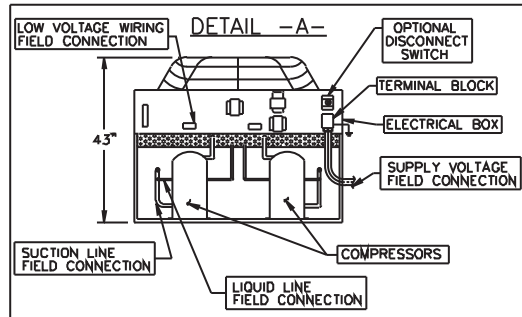
Remote condensing unit with dual 6.5-12 ton compressors



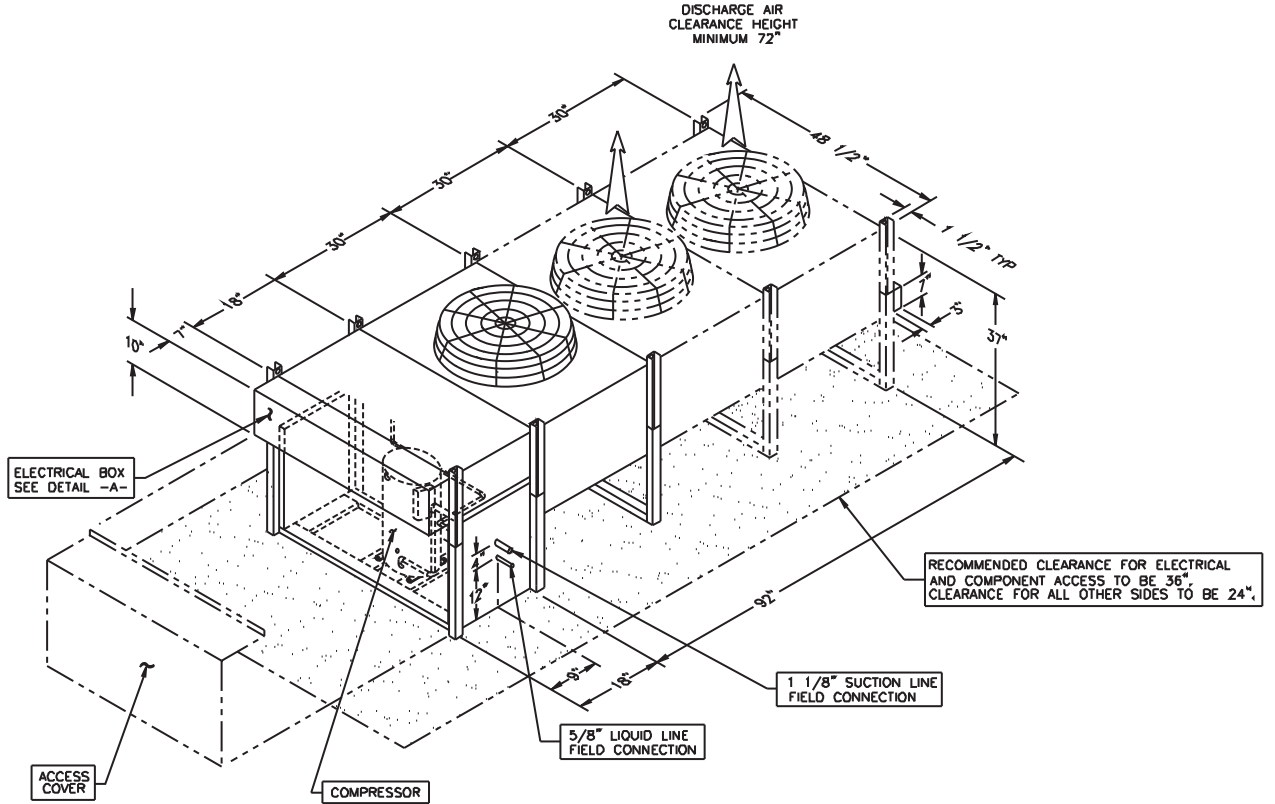
MODEL NO.	OPERATING WEIGHT	NUMBER OF FANS
DRCU 11	830 LBS	2
DRCU 15	860 LBS	2
DRCU 17	890 LBS	2
DRCU 21	1010 LBS	3
DRCU 24	1060 LBS	3
DRCU 28	1140 LBS	3

NOTES:

- * CONNECTION SIZES ARE NOT NECESSARILY THE RECOMMENDED FIELD PIPING SIZES.
- * EVAPORATOR SECTION NOT SHOWN



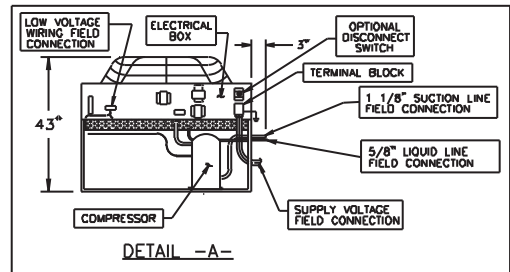
Remote condensing unit with single compressor



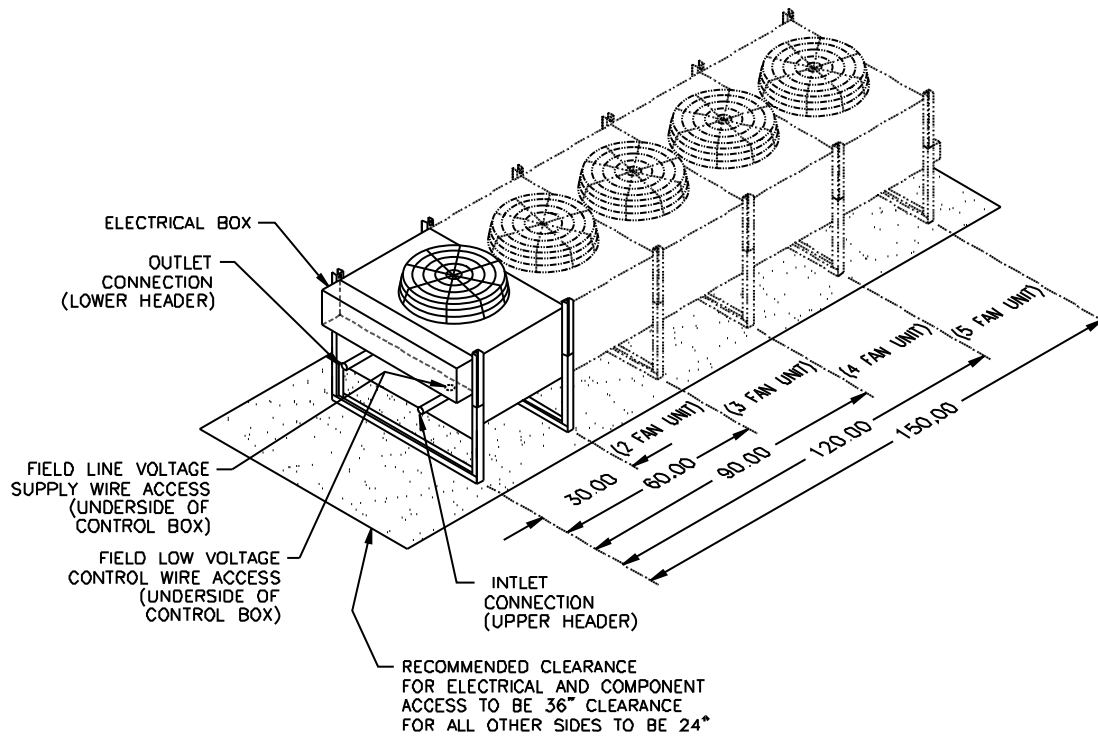
MODEL NO.	OPERATING WEIGHT	NUMBER OF FANS
DRCU 06	350 LBS	1
DRCU 07	350 LBS	1
DRCU 09	370 LBS	1
DRCU 11	400 LBS	2
DRCU 15	410 LBS	2
DRCU 17	420 LBS	2
DRCU 21	550 LBS	3

NOTES:

1. CONNECTIONS SIZES ARE NOT NECESSARILY THE RECOMMENDED FIELD PIPING SIZED.
2. EVAPORATOR SECTION NOT SHOWN



Fluid coolers - DAFC model 06-50



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

GENERAL

The environmental control units shall be provided with a high sensible cooling system and shall be capable of humidifying, dehumidifying, and filtering air. Units shall be factory assembled, piped, wired, and run tested prior to shipment. Provide quantities and configurations as shown on the project drawings.

Units shall be ETL or UL listed.

CABINET and FRAME

The frame shall be constructed of 14 gauge welded tubular steel and coated with a heavy corrosion inhibiting finish. The outer galvanized steel casing shall have removable panels for servicing. The panels shall be insulated with 1 inch thick, 1-1/2 pound density insulation for protection and sound attenuation. The electrical panel shall be hinged and swing out for servicing. A stainless steel drain pan shall be provided integral to the unit.

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 maximum vibration level of two mils in any plane. The blower wheel shall be supported by a heavy steel shaft having self-aligning ball bearings rated for an average life of 100,000 hours. The blower shall be driven by a motor mounted on an adjustable slide base. The motor shall be 1750 rpm and have internal overload. The drive 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.

FILTER SECTION

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

ELECTRIC REHEAT

The reheat shall be of the finned enclosed sheath type, fabricated of a stainless steel core sheath with plated fins to withstand moist conditions. The reheat shall be installed on the leaving air side of the cooling coil and shall be two stage. The total kW shall be 15 to operate on supply of ___ volts, 3 phase, 60 hertz.

REFRIGERATION CIRCUIT

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

The refrigeration circuit shall be a _____ circuit system.

The indoor evaporator section shall include the cooling coil, compressor(s), humidifier, reheat, filters, and controls. The cooling 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(s) shall be of the adjustable thermostatic type with external equalization. The compressor(s) shall be hermetic scroll type, with

REFRIGERATION CIRCUIT - *continued*

complete overload protection on all three power lines, internal thermostat for winding protection, 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(s) shall contain high and low pressure safety switches. The high and low pressure safety switches shall be installed with Shraeder type fittings with valve core.

Each system shall include a low profile, slow speed, direct drive propeller type air cooled condenser. The air discharge shall be vertical to minimize the effects of wind blowing through the coil at low ambient temperatures. The condenser shall be constructed of galvanized steel and contain a $\frac{1}{2}$ " 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 integral factory wired and tested control panel. The air cooled condenser shall be manufactured by the manufacturer of the indoor unit.

Refrigerant piping and control wiring between the indoor evaporator section and the remote outdoor condenser shall be field provided.

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

The refrigeration circuit shall be a _____ circuit system.

The indoor evaporator section shall include the cooling coil, humidifier, reheat, filters, and controls. The cooling coil shall be constructed with $\frac{1}{2}$ " 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(s) shall be of the adjustable thermostatic type with external equalization.

The outdoor condensing unit shall be constructed of galvanized steel and contain hermetic scroll compressor(s) with complete overload protection on all three power lines, internal thermostats for winding protection, 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(s) shall contain high and low pressure safety switches. The high and low pressure switches shall be installed with Shraeder type fittings with valve core.

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

Refrigerant piping and control wiring between the indoor evaporator section and the outdoor condensing unit shall be field provided.

Water/Glycol Cooled - Provide a water/glycol cooled system with indoor evaporator and remote outdoor fluid cooler (dry cooler).

The refrigeration circuit shall be (single or dual) circuit.

The indoor evaporator section shall include the cooling coil, compressor(s), humidifier, reheat, filters, and controls. The cooling 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(s) shall be of the adjustable thermostatic type with external equalization. The compressor shall be of the hermetic scroll type with complete overload protection on all three power lines, internal thermostats for winding protection, crankcase heater, sight-glass, condenser with sub-cooling, and 3-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 safety pressure switches. The high and low safety switches shall be installed with Shraeder type fittings with valve core.

Each system shall include a low profile, slow speed, direct drive propeller fan type air cooled fluid cooler. Air discharge shall be vertical to prevent wind from blowing through the coil at low ambient temperatures. The fluid cooler shall be constructed of galvanized steel 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 fans. The fluid cooler shall include a surge tank and fill valve, pump contactor, and fan cycling controls with an integral factory wired and tested control panel. The fluid cooler shall be manufactured by the manufacturer of the indoor unit.

Piping and control wiring between the indoor evaporator section and the outdoor fluid cooler shall be field provided.

Chilled Water System - Provide a chilled water unit. The unit shall include the chilled water coil, humidifier, reheat, filters, and controls. The chilled water coil shall be constructed with 1/2" O.D. copper tube with 12 fins per inch of corrugated aluminum. Maximum face velocity shall be less than 500 feet per minute. The chilled water flow shall be controlled by a 3-way chilled water valve for accurate and economical temperature control and dehumidification. The entering chilled water temperature shall be ___° F. The leaving chilled water temperature shall be ___° F. The water flow shall be ___ GPM.

Unit control shall be maintained with the microprocessor based *Mini Data Alarm Processor-II*. The controller shall be a wall mounted, with a one row, 16 character liquid crystal display (LCD). The controller shall monitor the humidity, air flow, and cleanliness, and will also provide an alarm history and an automatic self-test of the microprocessor on system start-up. Multiple messages shall be displayed by automatically scrolling from each message to the next. All messages shall be presented in a clear vernacular format on the liquid crystal display (LCD). Multiple alarms shall be displayed sequentially in order of occurrence.

Control System

OPERATION - A slide switch shall allow unit on/off operation: push buttons shall allow menu selection for programming, operational information, diagnostics, and historical data. The two-level password feature shall prevent unauthorized access. Menu programmed information for basic system operation and alarm parameters shall be nonvolatile.

PROGRAMMABLE FUNCTIONS - The user friendly MENU and SELECT push buttons shall permit step-by-step programming of the following selections:

Temperature setpoint 65-85° F/18.3-29.4° C	Humidity setpoint 30-70% RH
Temperature deadband ±1-5° F/C in 0.1° increments	Humidity deadband ±1-15% RH
Temperature alarm points	Humidity alarm points
Calibrate temperature sensor	Calibrate humidity sensor
Unit start time delay	Interstage time delay
Password - 1st level	Password 2nd level
Audio alarm level	Restart mode
Firestat trip temperature	Local alarm

DISPLAYED CONDITIONS, DATA, and FUNCTIONS - The *Mini Data Alarm Processor-II* shall display and monitor the following conditions, data, and functions:

Temperature setpoints	Humidity setpoint
Current temperature	Current humidity
Cooling 1, 2 (as applicable)	Heating
Humidification	Dehumidification

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

High temperature warning	High humidity warning
Low temperature warning	Low humidity warning
Compressor high pressure	Condensate pan high level
Firestat tripped	Power failure restart
Compressor short cycle	Low voltage warning
Temperature sensor error	Humidity sensor warning

HISTORICAL DATA - The microprocessor shall have the capability to recall and display temperature and humidity, with the minimum and maximum readings since the last power on. Alarm history shall be maintained in sequential order (up to 5 alarms).

DIAGNOSTICS - Automatic and manual diagnostics sequences shall simplify troubleshooting.

Options

Energy Saver Coil - Provide an Energy Saver Coil, built into the system to provide total matching capacity. Whenever the incoming water/glycol temperature is below the setpoint of the water sensing changeover thermostat, Energy Saver cooling shall be available. The water sensing changeover thermostat shall be factory set at 45° F/7.2° C. The water sensing changeover thermostat shall be field adjustable. Energy Saver mode shall operate during a need for cooling. Energy Saver mode shall operate in the following range: return air setpoint plus deadband plus 2 degrees. The Energy Saver valve shall open at setpoint plus deadband. The valve shall modulate as long as the space is between setpoint plus deadband plus 2 degrees. When the space temperature falls to setpoint, the valve shall close and the space shall be considered satisfied. While in Energy Saver mode with the valve open, if the incoming water/glycol temperature rises 3° F above the setpoint (of the water sensing changeover thermostat), the Energy Saver valve shall close and DX (mechanical) cooling shall begin. Provide a 3-way pressure control valve on the condenser water circuit, and 3-way valve on the economy coil. Common piping for coil and condensers shall be provided.

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

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

Unit Mounted Disconnect - Provide a unit mounted nonautomatic disconnect switch installed in the high voltage electrical section. The operating mechanism shall prevent access to the high voltage electrical components until switched to the "OFF" position. The operating mechanism (handle) shall protrude through the exterior unit panel.

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

Provide a steam generator humidifier with a capacity of ___ pounds per hour.

Hot Water Reheat - Provide hot water reheat. The coil shall be designed for 150 psi maximum water pressure and shall include a 2-way valve.

Hot Gas Reheat - Provide hot gas reheat. The hot gas discharge shall be used for reheat and maximum system efficiency.

3-Way Water Regulating Valve - Provide a 3-way water regulating valve for pressure control. The 3-way valve shall control the water/glycol flow rate to maintain the required capacity under varying conditions.

Condensate Pump - Provide a factory mounted and wired condensate pump. The condensate pump shall be complete with sump, motor, and automatic control. The pump shall be rated for 130 GPH at 20 feet maximum or 40 GPH at 20 feet with check valve.

60% Efficient Filters - Provide 60% efficient filters (based on *ASHRAE Std. 52.1-1992*). Filters shall be 4 inch deep, pleated type.

Extended Compressor Warranty - Provide an extended compressor warranty for a period of four (4) years in addition to the standard one (1) year warranty. The warranty shall be for replacement of compressors and does not



230 W. BlueRidge Avenue
Orange CA 92865
800-347-2473

www.dataaire.com e-mail: sales@dataaire.com

A Member of the CS Group of Companies

© 2010 Data Aire Inc.
Data Aire, Inc. reserves the right to make design changes for the purposes of product improvement, or to withdraw any design without notice.

DALCS-1107Rev 0110



