



COMPU-AIRE INC.

MINI-TEMP PLUS

CEILING MOUNT SPLIT SYSTEMS

1-1/2 THRU 5 TON

*Specialized Environmental Air Conditioning
Systems for Computer Rooms, School Rooms,
and Telecommunications facilities*



**AIR CONDITIONING YOU PUT IN YOUR CEILING,
NOT IN YOUR WAY**

U.L. LISTED

MODEL DESIGNATION

EVAPORATOR

MT E P - 2 1 2

MT = Mini-Temp
 E = Evaporator
 P = Plus

Tonnage
 1.5 = 1.5 Ton
 2 = 2 Ton
 3 = 3 Ton
 5 = 5 Ton

Voltage
 2 = 208 V
 4 = 460 V
 7 = 277 V

Phase
 1 = 1 Phase
 3 = 3 Phase

CONDENSING SECTION

CF CU - 2 1 2

Type
 CF = Centrifugal Fan Type
 PF = Propeller Fan Type
 WC = Water Cooled Type

CU = Condensing Unit

Tonnage
 1.5 = 1.5 Ton
 2 = 2 Ton
 3 = 3 Ton
 5 = 5 Ton

Voltage
 2 = 208 V
 4 = 460 V
 7 = 277 V

Phase
 1 = 1 Phase
 3 = 3 Phase

TABLE OF CONTENTS

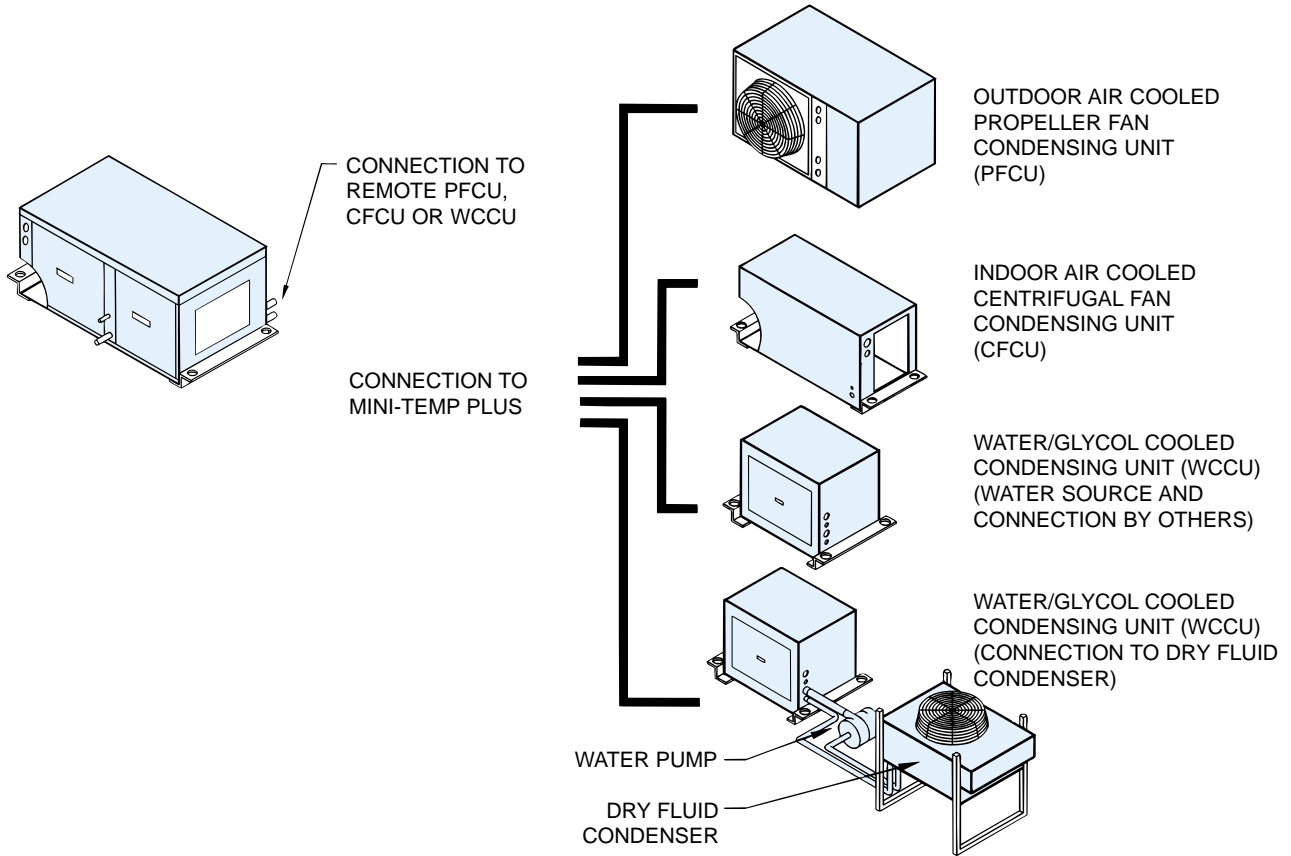
MODEL DESIGNATION	2
AVAILABLE SYSTEMS	4
STANDARD FEATURES	5
OPTIONAL FEATURES	6
EVAPORATOR SECTION (TECHNICAL DATA)	7
AIR COOLED - TECHNICAL DATA	7
WATER COOLED - TECHNICAL DATA	7
GLYCOL COOLED - TECHNICAL DATA	7
CHILLED WATER - TECHNICAL DATA	8
EVAPORATOR SECTION (DIMENSIONAL DATA)	9
AIR COOLED - DIMENSIONAL DATA	9
WATER COOLED - DIMENSIONAL DATA	9
GLYCOL - DIMENSIONAL DATA	9
CHILLED WATER - DIMENSIONAL DATA	9
CONDENSING UNITS (TECHNICAL DATA & DIMENSIONAL DATA)	10
AIR COOLED CONDENSING UNITS (PFCU) - TECHNICAL DATA	10
AIR COOLED CONDENSING UNITS (PFCU) - DIMENSIONAL DATA	10
AIR COOLED CONDENSING UNITS (CFCU) - TECHNICAL DATA	11
AIR COOLED CONDENSING UNITS (CFCU) - DIMENSIONAL DATA	11
WATER COOLED CONDENSING UNITS (WCCU) - TECHNICAL DATA	12
WATER COOLED CONDENSING UNITS (WCCU) - DIMENSIONAL DATA	12
ELECTRICAL DATA	13
MECHANICAL SPECIFICATIONS	14

AVAILABLE SYSTEMS

MINI-TEMP PLUS (MTE)

DUCTED SYSTEMS

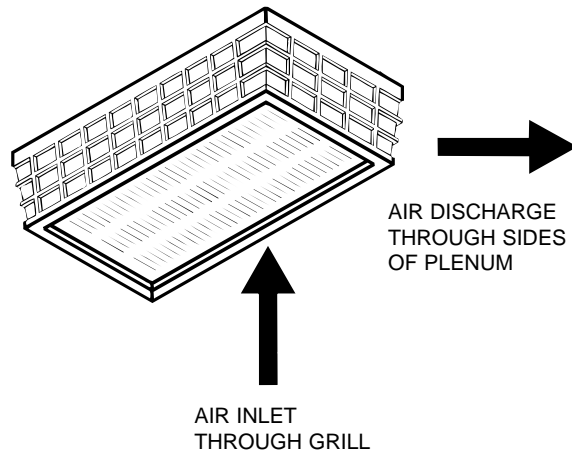
EVAPORATOR SECTION

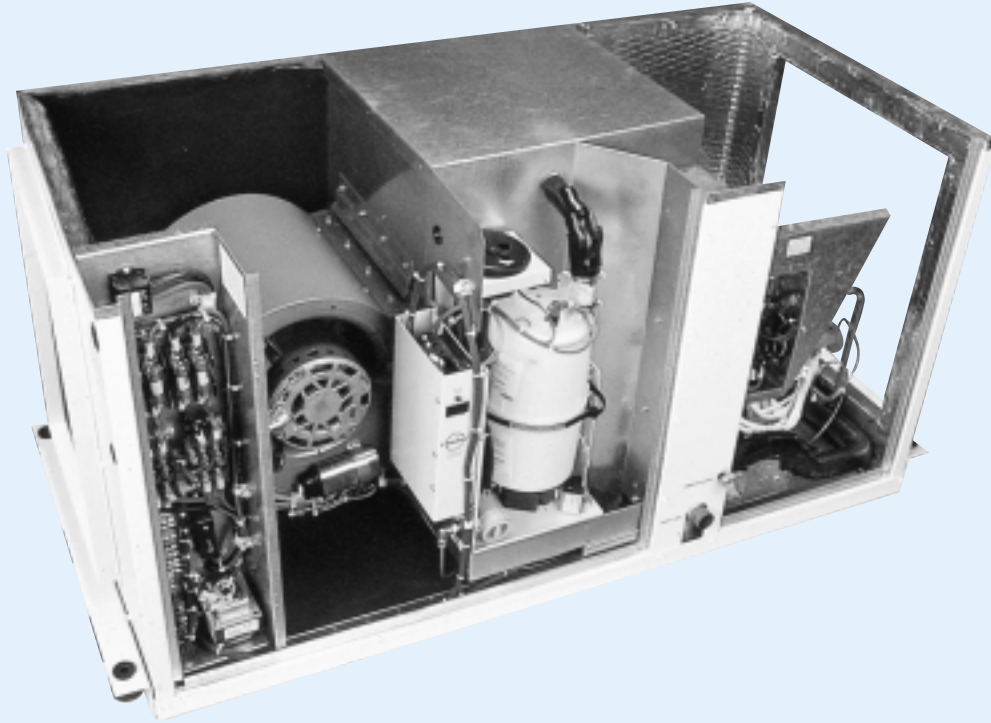


NON DUCTED SYSTEMS

Evaporator Unit (For 1.5, 2, 3 tons only)

Plenum (optional)





Designed to provide spot cooling requirements with flexibility and Convenience

STANDARD FEATURES

Precision environmental control systems are designed to protect sensitive electronic equipment. The Compu-Aire [Mini-Temp Plus](#) environmental control systems meet the demands of computer room, and other spot cooling operations, while offering the flexibility and convenience of easy installation.

Installed above the ceiling, the [Mini-Temp Plus](#) system maintains the temperature, wet bulb, and air distribution required.

COMPUTER MATCHED. Compu-Aire [Mini-Temp Plus](#) systems are designed to create the environment required for computers and other sensitive equipment. [Mini-Temp Plus](#) provides complete control of temperature, and humidity on an around-the-clock basis.

EASY SERVICE. Low maintenance components are easily accessible through removable panels, and does not require disconnecting of piping or electrical wiring. Spare parts are always in Compu-Aire inventory and are available on short notice.

HIGH EFFICIENCY. A high sensible heat ratio, two selectable direct drive fan speeds (optional) and precise control allow the system to operate efficiently. The 5-ton [Mini-Temp Plus](#) also has a beltdrive motor, and two stage cooling coil (optional), providing an extra step of control for energy efficiency.

QUIET OPERATION. The hermetic scroll compressor is vibration isolated from the chassis, and the zinc-coated steel cabinet is insulated to ensure quiet operation.

RELIABLE. Our [Mini-Temp Plus](#) installations are testimony to the system reliability. Components include a rugged hermetic scroll compressor; a high efficiency copper-tube/aluminum-fin evaporator coil; and a double width/double inlet, 5 ton in belt drive, direct drive fan for 1.5 thru 3.0 ton system.

SPACE SAVING DESIGN. All indoor components are installed above the ceiling, so no floor space is required.

[MINI-TEMP PLUS](#) units are available in a variety of configurations to provide application flexibility. Models include Air Cooled, Glycol Cooled, Water Cooled and Chilled Water systems.

OPTIONAL FEATURES

1. FILTER BOX

The filter box shall be factory provided with "V" filter bank and shall be provided with disposable filters rated at _____% efficiency based on ASHRAE 52-76 and shall be _____" thick.

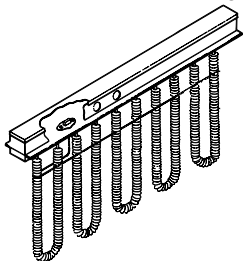
2. STEAM GENERATING HUMIDIFIER

The Mini-Temp Plus system shall be equipped with a steam generating humidifier. It shall be complete with a disposable generator (cylinder), all supply and drain valves, steam distributor and electronic controls. The need to change cylinders shall be indicated on the microprocessor control panel (when ordered).



3. ELECTRIC REHEAT (5 Ton)

The low-watt density, finned tubular electric reheat coils shall maintain room dry bulb conditions when the system is in the dehumidification mode. The reheat section shall include U.L. approved temperature limits to protect the system from overheating. The capacity of the reheat coils shall be _____ BTU/HR, _____ KW, and shall be _____ stage(s).



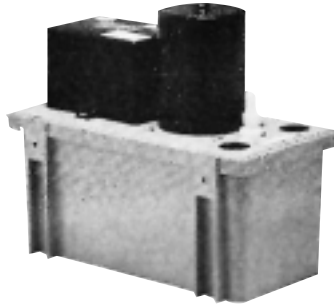
1.5, 2 & 3 ton supplied with optional 5 kw strip heater 1-stage

4. AIR DISTRIBUTION PLENUM

An air discharge plenum may be attached to the [Mini-Temp Plus](#), to fit the 2' x 4' ceiling tile (1.5 thru 3 ton system only) eliminating the need for ductwork. (not available with a 5 ton unit). The plenum includes an easily accessible filter compartment with disposable filter.

5. CONDENSATE PUMP

A condensate pump 35gph capacity with 20 ft. head shall be provided for field installation specially adapted to the unit. Power shall be 115 or 230V/1/60 and shall be for field installation.



6. LOW AMBIENT CONTROL FLOODBACK TYPE (-30°F) FOR PFCU OR CFCU

The low ambient control system for the air cooled condenser shall be a "floodback" type. The "floodback" type system shall allow start-up and positive head pressure control with ambient temperature as low as -30°F (-34.3°C). The "floodback" package shall include: liquid receiver mounted in the main unit, pressure relief valve, and head pressure three-way control valve for field mounting on the condenser.

7. LOW AMBIENT CONTROL VARIABLE SPEED FOR PFCU (-20°F)

PFCU condensing unit shall be provided with a vari-speed package for low ambient to -20°F: Consisting of factory supplied, mounted and wired weatherproof control panel and an SCR speed installed on the fan. The speed controller modulates air delivery in direct response to head pressure and maintains the minimum head pressure required.

8. EXTENDED COMPRESSOR WARRANTY

Compressor shall be warranted for 5 years from the date of start up. This warranty is limited to supply of compressors on hand at factory. Freight expenses not included.

9A. CONTROLS: The Mini-Temp Plus system are supplied with a digital, programmable thermostat with 5 day programming which displays unit functions as standard, for field installation. If the optional humidifier is required, a 2 stage humidistat is also shipped for field installation.

9B. SYSTEM 2000 MICROPROCESSOR CONTROLS

Dual display, digitally operated, remote controller for precise temperature and humidity control. 16 character LCD display and six push button switches. Displays current room temperature, unit status and alarm messages. Five year battery back up for volatile memory.



9C. ADVANCED TECHNOLOGY CONTROLS - SYSTEM 2200

The remote wall mounted microprocessor based, solid state controls has 4 rows, 40 characters, back lit, supertwist liquid crystal display (LCD). Information is displayed and presented in a format that is easily viewed and understood. Optional communication capability is available.



10. HOT GAS BYPASS

Hot gas bypass control is available to vary the cooling capacity, and match load requirements.

11. LOW AMBIENT DAMPER

Low ambient damper with head pressure actuator (CFCU system only), allows unit to operate down to _____ degrees F.

12. THREE WAY WATER REGULATING VALVE

Replaces the standard 2 way water regulating valve on water and glycol cooled systems.

13. THREE WAY CHILLED WATER VALVE

Replaces the standard 2 way water valve supplied on chilled water systems.

TECHNICAL DATA

AIR COOLED, WATERCOOLED & GLYCOL SYSTEM

TABLE NO.1

EVAPORATOR SECTION

NOMINAL TONS	1.5	2	3	5
MODEL	MTE-P-1.5	MTE-P-2	MTE-P-3	MTE-P-5
ENERGY EFFICIENCY RATIO	9.0	9.2	9.1	9.0
CAPACITY DATA-HIGH SPEED FAN	DIRECT	DIRECT	DIRECT	Belt Drive
80°F(27°C) DB/50% RH ENTERING AIR				
Total-BTU/HR(kW)	18200(5.3)	24900(7.3)	36800(10.7)	65800(19.2)
Sensible-BTU/HR(kW)	13975(4.1)	20420(5.9)	29350(8.6)	50500(14.8)
75°F(21°C) DB/50% RH ENTERING AIR				
Total-BTU/HR(kW)	16720(4.9)	23300(6.7)	33850(9.9)	61100(17.9)
Sensible-BTU/HR(kW)	13420(3.9)	19650(5.7)	28200(8.2)	48920(14.3)
72°F(21°C) DB/50% RH ENTERING AIR				
Total-BTU/HR(kW)	15850(4.6)	22100(6.4)	32320(9.4)	58250(17.1)
Sensible-BTU/HR(kW)	12950(3.8)	19200(5.6)	27420(8.0)	47920(14.0)
FAN DATA - based on esp-	0.3 in	0.3 in	0.3 in	0.5 in
Fan Motor HP	3/4	3/4	3/4	1 1/2
High Speed CFM (L/s)	685 (318)	895 (417)	1260 (590)	2360 (1109)
COIL DATA - copper tubing - aluminum fins				
Face Area FT ² (m²)	1.8(0.17)	1.8(0.17)	2.6(0.25)	5.5(0.53)
Rows/FPI	4/12	4/12	4/12	4/12
REHEAT DATA- Electric (Optional)				
kW/stages	5.0/1	5.0/1	5.0/1	12.0/2
Capacity-BTU/HR - Includes fan motor	17050	17050	17050	40920
HUMIDIFIER DATA - Disposable Cylinder (Optional)				
kW	1.7	1.7	1.7	3.4
LBS/HR (kg/hr)	4.5(2.0)	4.5(2.0)	4.5(2.0)	10.0(4.5)
PIPING CONNECTION DATA - in inches (mm)				
Liquid Line	3/8" (10)	3/8" (10)	3/8" (10)	3/8" (10)
Suction Line	5/8" (16)	7/8" (22)	7/8" (22)	1 1/8" (29)
Humidifier Supply	1/4" (6)	1/4" (6)	1/4" (6)	1/4" (6)
Condensate Drain	1 1/8" (29)	1 1/8" (29)	1 1/8" (29)	1 1/8" (29)
WEIGHT LBS(kg)	195(88.6)	195(88.6)	210(95.4)	275(125)

Bold Face Data in Metric Units

TECHNICAL DATA

CHILLED WATER MTC-P			TABLE NO.2	
NOMINAL TONS	1.5	2	3	5
MODEL	MTC-P-1.5	MTC-P-2	MTC-P-3	MTC-P-5
CAPACITY DATA - Based on 45°F (7.5°C) Entering Water				
80°F(27°C) DB/50% RH ENTERING AIR				
Total-BTU/HR(kW)	21719(6.4)	26719(7.8)	37500(11.0)	74063(24.3)
Sensible-BTU/HR(kW)	16531(4.9)	20710(6.1)	29984(8.8)	56338(16.5)
75°F(24°C) DB/50% RH ENTERING AIR				
Total-BTU/HR(kW)	17188(5.0)	21094(6.2)	29688(8.7)	58438(17.1)
Sensible-BTU/HR(kW)	15407(4.5)	18827(5.4)	29696(8.2)	51282(15.0)
72°F(21°C) DB/50% RH ENTERING AIR				
Total-BTU/HR(kW)	14844(4.4)	17481(5.1)	24632(7.2)	50625(14.8)
Sensible-BTU/HR(kW)	12988(3.8)	17481(5.1)	24632(7.2)	47670(14.0)
GPM(L/s)	3.6 (0.23)	4.8 (0.30)	7.2 (0.45)	12(0.76)
Pressure Drop Ft. of Water (kPA)	17.2(51.4)	18.2(54.4)	23.5(70.3)	10.5(31.4)
FAN DATA	Direct Drive	Direct Drive	Direct Drive	Belt Drive
Fan Motor HP	1/2	1/2	3/4	1
CFM (L/s)	685(318)	895(417)	1260(590)	2360(1109)
COIL DATA - copper tubing - aluminum fins				
Face Area FT ² (m²)	2.65(0.26)	2.65(0.26)	2.65(0.26)	5.6(0.54)
Rows	4	4	4	4
REHEAT DATA- Electric (Optional) - include motor heat				
kW/stages	5.0/1	5.0/1	5.0/1	12.0/2
Capacity-BTU/HR	17052	17052	17052	40920
HUMIDIFIER DATA - Disposable Cylinder Type (Optional)				
kW	1.7	1.7	1.7	6.2
LBS/HR (kg/hr)	4.5(2.0)	4.5(2.0)	4.5(2.0)	10.0(4.4)
PIPING CONNECTION DATA - in inches (mm)				
Water Supply	7/8" (22)	7/8" (22)	7/8" (22)	1-1/8" (29)
Water Return	7/8" (22)	7/8" (22)	7/8" (22)	1-1/8" (29)
Humidifier Supply	1/4" (6.35)	1/4" (6.35)	1/4" (6.35)	1/4" (6.35)
Condensate Drain	3/4" (19)	3/4" (19)	3/4" (19)	3/4" (19)
WEIGHT LBS(kg)	185(84)	185(84)	220(100)	350(159)

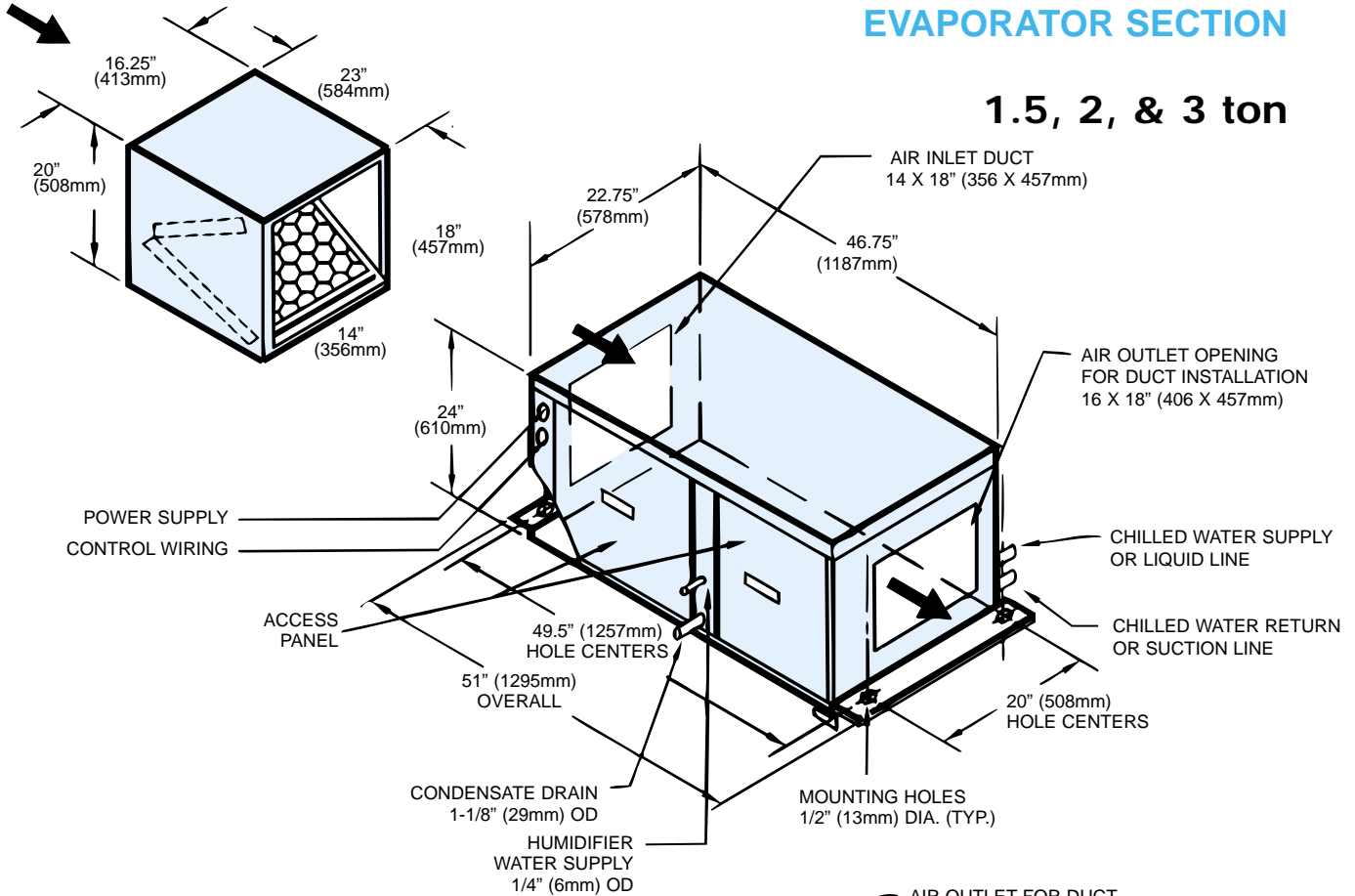
Bold Face Data in Metric Units

DIMENSIONAL DATA

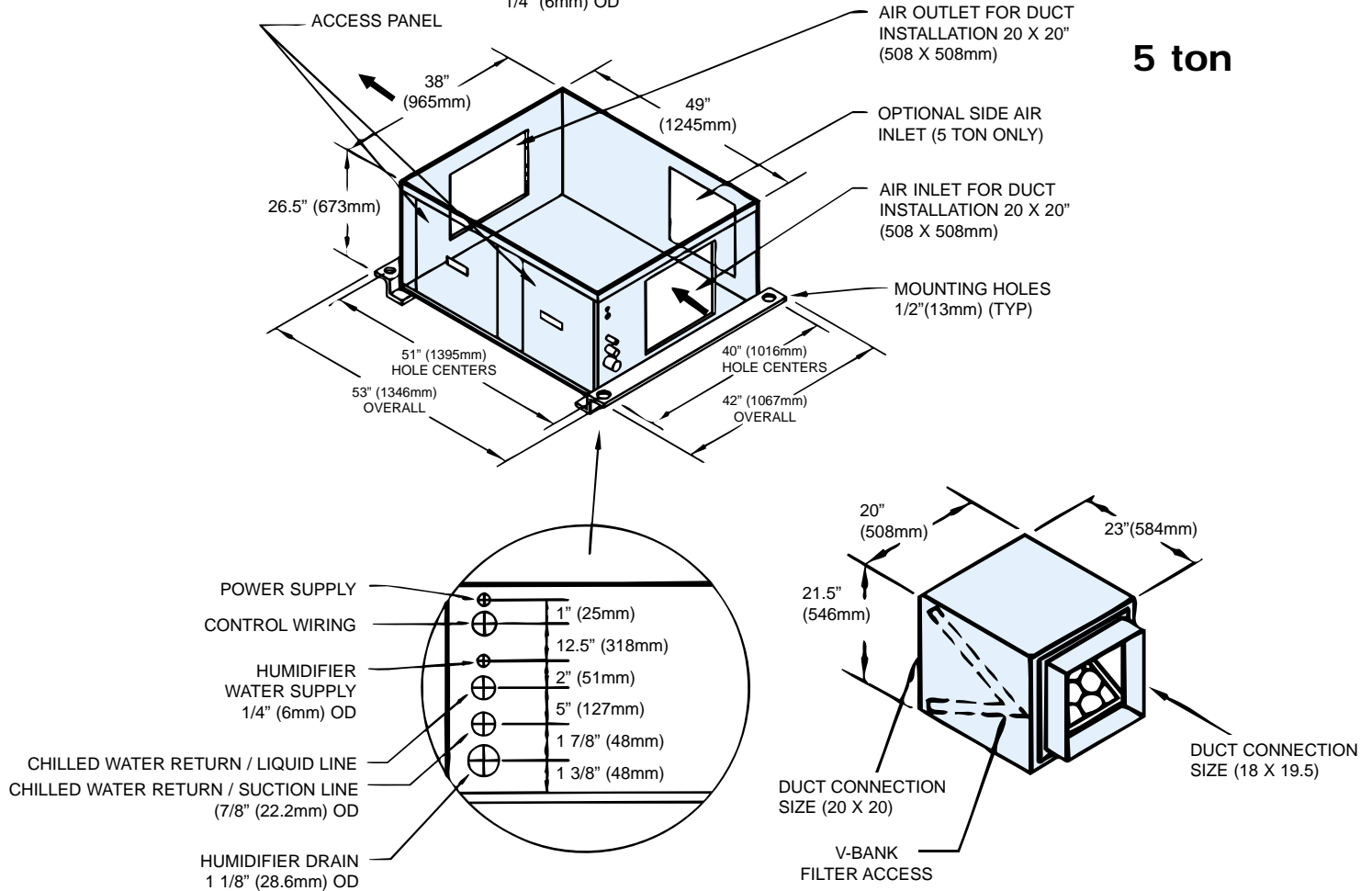
AIRCOOLED, GLYCOL, CHILLED WATER SYSTEM

EVAPORATOR SECTION

1.5, 2, & 3 ton

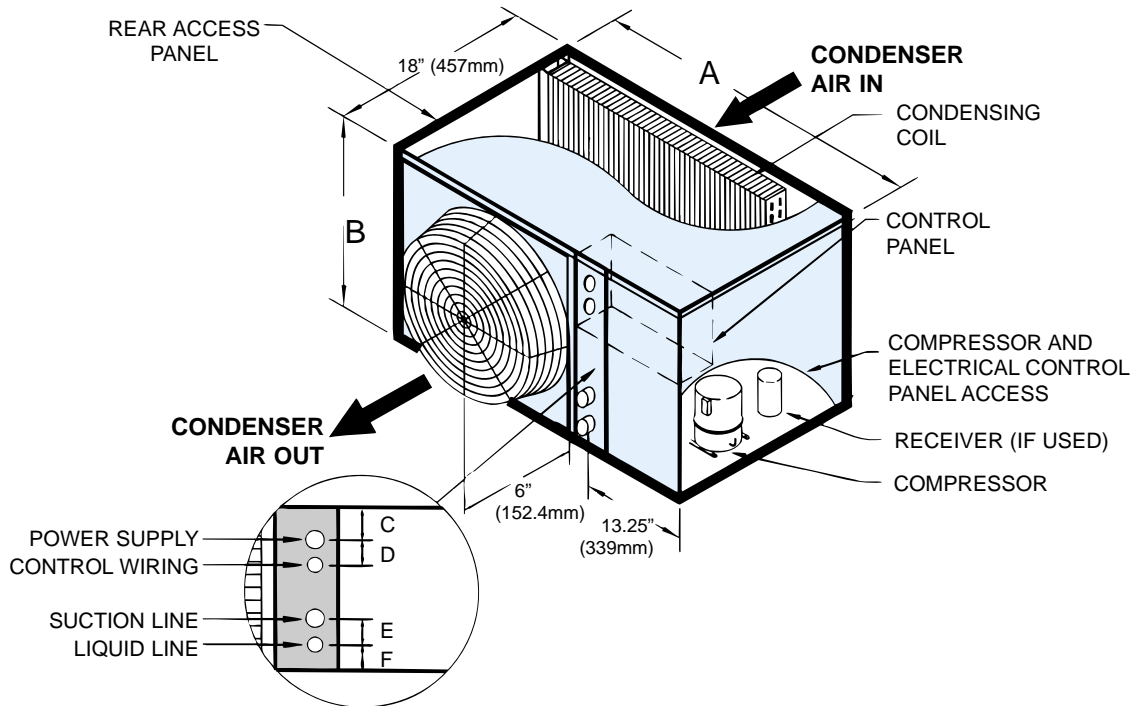


5 ton



DIMENSIONAL DATA

AIRCOOLED PROPELLER FAN TYPE CONDENSING UNIT - MODEL PFCU



DIMENSIONAL DATA							TABLE NO. 3	
PFCU	NOMINAL	A	B	C	D	E	F	WEIGHT
MODEL	TONNAGE	in. (mm)	in. (mm)	in. (mm)	in. (mm)	in. (mm)	in. (mm)	LBS. (Kg)
1.5	1.5	38" (965)	24" (610)	1.75" (44.4)	2.00" (50.8)	3.00" (76.2)	13.00" (330.2)	240 (108)
2	2	43" (1092)	24" (610)	1.75" (44.4)	2.00" (50.8)	3.00" (76.2)	13.00" (330.2)	300 (135)
3	3	50" (1270)	31" (787)	2.00" (50.8)	2.00" (50.8)	3.00" (76.2)	21.00" (533.4)	325 (146)
5	5	54" (1372)	37" (940)	3.00" (76.2)	2.00" (50.8)	3.00" (76.2)	21.00" (533.4)	340 (153)

TECHNICAL DATA

AIR-COOLED PROPELLER FAN TYPE CONDENSING SECTION (PFCU)

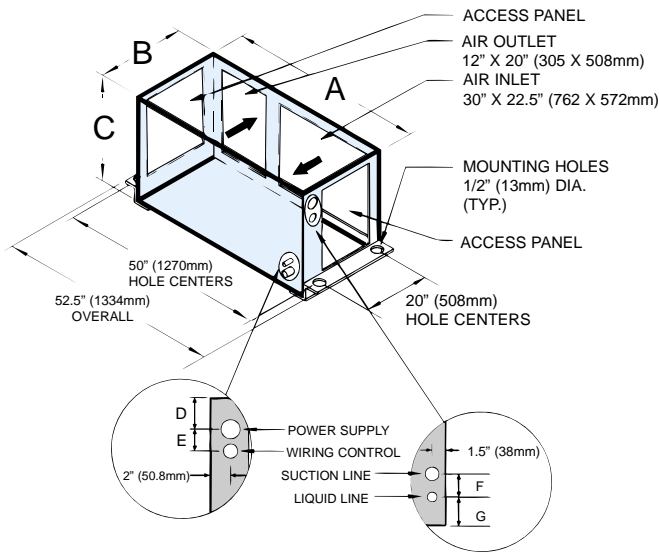
TABLE NO. 4

MODEL	PFCU-1.5	PFCU-2	PFCU-3	PFCU-5
NOMINAL TONNAGE	1.5	2	3	5
EER	9.2	9.4	9.5	9.3
Compressor Data - Heat Pump Duty High Efficiency Hermetic R-22				
Size	1.5	2	3	5
EER	10.0	10.2	10.4	10.1
Fan Data - Direct Drive				
	Direct	Direct	Direct	Direct
CFM (L/s)	1420(670)	1420(670)	1980(934)	4000(1890)
Fan Size	20"	20"	24"	24"
Fan Quantity	1	1	1	1
Motor Hp	1/2	1/2	1/2	3/4
Quantity of Motor	1	1	1	1
Condenser Coil Data ESP wg(PA)				
	0.2(50)	0.2(50)	0.2(50)	0.2(50)
Face Area Ft ² (m ²)	3.8(0.35)	5.0(0.46)	7.7(0.72)	10.5(0.98)
Rows	2	2	2	3
Piping Data in inches(mm)				
Liquid Line (req'd) 1-req'd	3/8"(10)	3/8"(10)	3/8"(10)	1/2"(13)
Suction Line (req'd) 1-req'd	5/8"(16)	7/8"(22)	7/8"(22)	1-1/8"(29)
WEIGHT LBS(kg)	275(123)	310(140)	325(146)	340(155)

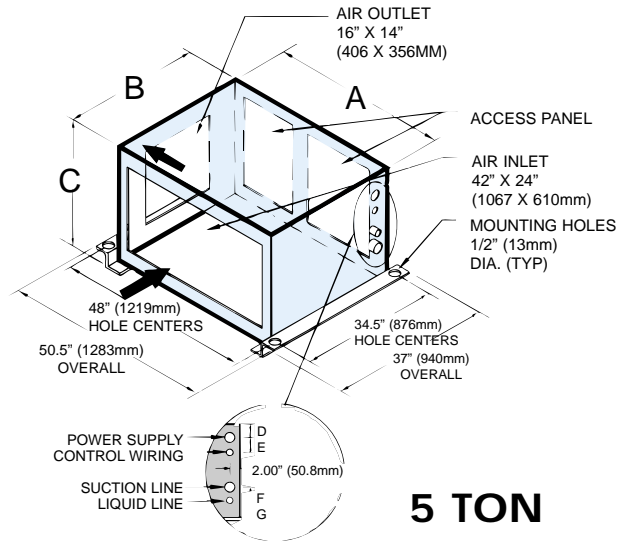
BOLD FACE DATA IN METRIC UNITS

DIMENSIONAL DATA

AIRCOOLED CENTRIFUGAL FAN TYPE CONDENSING UNIT - MODEL CFCU



1.5, 2, & 3 TON



5 TON

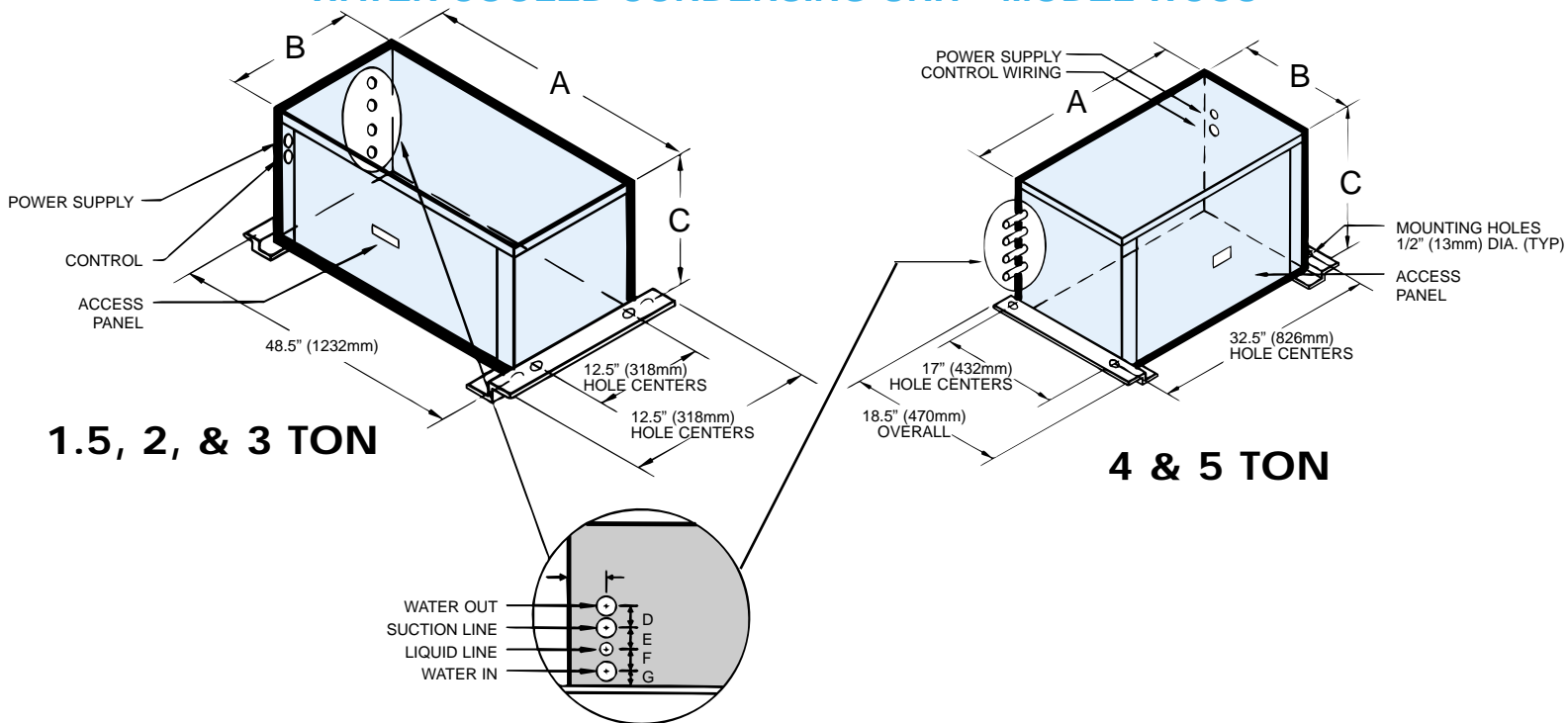
DIMENSIONAL DATA									TABLE NO. 5
CFCU MODEL	NOMINAL TONNAGE	A in. (mm)	B in. (mm)	C in. (mm)	D in. (mm)	E in. (mm)	F in. (mm)	G in. (mm)	WEIGHT LBS. (Kg)
1.5, 2, 3	1.5, 2, 3	46.75" (1187)	22.5" (578)	24" (610)	2.00" (50.8)	1.5" (38)	2.00" (50.8)	2.00" (50.8)	325 (146)
5	5	46" (1168)	30" (762)	26" (660)	3.0" (76)	2.5" (64)	3.0" (76)	3.5" (89)	40 (180)

TECHNICAL DATA					TABLE NO. 6
AIR COOLED CENTRIFUGAL FAN TYPE (CFCU)					
MODEL	CFCU-1.5	CFCU-2	CFCU-3	CFCU-5	
NOMINAL TONNAGE	1.5	2	3	5	
EER	9.0	9.2	9.3	9.1	
Compressor Data - Heat Pump Duty High Efficiency Hermetic R-22					
Size	1.5	2	3	5	
EER	10.0	10.2	10.4	10.1	
Fan Data - Centrifugal Fan Type					
	Direct	Direct	Direct	Belt	
Air Volume CFM (L/s)	1020(482)	1020(482)	1670(788)	3580(1690)	
Motor (HP)	3/4	3/4	3/4	1 1/2	
ESP "wg (PA)	0.20(50)	0.20(50)	0.20(50)	0.20(50)	
Condenser Coil Data					
Face Area Ft ² (m ²)	1.75(0.17)	1.75(0.17)	4.6(0.43)	7.6(0.71)	
ROWS	4	4	3	4	
FPI	12	12	12	12	
Piping Data inches (mm)					
Liquid Line (1 Req'd)	3/8"(10)	3/8"(10)	3/8"(10)	1/2"(13)	
Suction Line (1 Req'd)	5/8"(16)	7/8"(22)	7/8"(22)	1-1/8"(29)	
Weight lbs (kg)	285(130)	310(140)	340(154)	395(180)	

BOLD FACE DATA IN METRIC UNITS

DIMENSIONAL DATA

WATER COOLED CONDENSING UNIT - MODEL WCCU



1.5, 2, & 3 TON

4 & 5 TON

DIMENSIONAL DATA									TABLE NO. 7
WCCU	NOMINAL	A	B	C	D	E	F	G	WEIGHT
MODEL	TONNAGE	in. (mm)	in. (mm)	in. (mm)	in. (mm)	in. (mm)	in. (mm)	in. (mm)	LBS. (Kg)
1.5, 2, 3	1.5, 2, 3	46.5" (1181)	14" (356)	16" (406)	4.625" (117.4)	4.625" (117.4)	4.625" (117.4)	2.00" (50.8)	275 (124)
5	5	30" (762)	18.5" (470)	26" (660)	4.625" (117.4)	4.625" (117.4)	4.625" (117.4)	2.00" (50.8)	345 (155)

TECHNICAL DATA					TABLE NO. 8
WATER COOLED CONDENSING UNIT WCCU					
MODEL	WCCU-1.5	WCCU-2	WCCU-3	WCCU-5	
NOMINAL TONNAGE	1.5	2	3	5	
EER	9.9	10.2	10.3	10.0	
Type of Drive	Direct Drive	Direct Drive	Direct Drive	Belt Drive	
Compressor Data - Heat Pump Duty High Efficiency Hermetic R-22					
Size	1.5	2	3	5	
EER	10.0	10.2	10.4	10.1	
Water Cooled Condenser Data					
Condenser Type	Co-Axial	Co-Axial	Co-Axial	Co-Axial	
GPM @ 75°F EWT (L/S)	2.25(0.14)	3.0(0.19)	4.5(0.28)	7.5(0.47)	
Pressure Drop Ft. of H ² O (kPA)	10.1(30.1)	10.1(30.1)	10.1(30.1)	10.1(30.1)	
GPM @ 85°F EWT	4.5(0.28)	6.0(0.39)	7.5(0.47)	15.0(0.95)	
Pressure Drop Ft. of H ² O (kPA)	17.1(50.9)	17.1(50.9)	17.1(50.9)	17.1(50.9)	
GPM @ 105°F EWT	6.0(0.38)	8.0(0.5)	12.0(0.76)	20.0(1.26)	
Pressure Drop Ft. of H ² O (kPA)	37.1(110.9)	37.1(110.9)	37.1(110.9)	37.1(110.9)	
Piping Data All Sizes are in inches (mm)					
Liquid Line (1 Req'd)	3/8"(10)	3/8"(10)	3/8"(10)	1/2"(13)	
Suction Line (1 Req'd)	5/8"(16)	7/8"(22)	7/8"(22)	1-1/8"(29)	
Water Supply (1 Req'd)	7/8"(22)	7/8"(22)	1-1/8"(29)	1-1/8"(29)	
Water Return (1 Req'd)	7/8"(22)	7/8"(22)	1-1/8"(29)	1-1/8"(29)	
Weight lbs(kg)	275(123)	275(123)	290(132)	345(159)	

BOLD FACE DATA IS IN METRIC UNITS

ELECTRICAL DATA

EVAPORATOR SECTION - WITHOUT REHEAT AND HUMIDIFIER

TABLE NO. 9

Voltage/Phase/Hertz

MODEL	208/1/60			277/1/60			208-230/3/60			460/3/60		
	FLA	MCA	MFS	FLA	MCA	MFS	FLA	MCA	MFS	FLA	MCA	MFS
MTEP-1.5	4.6	5.8	15	4.8	6.0	15	N/A	N/A	N/A	N/A	N/A	N/A
MTEP-2	4.6	5.8	15	4.8	6.0	15	4.6	5.8	15	N/A	N/A	N/A
MTEP-3	4.6	5.8	15	4.8	6.0	15	4.6	5.8	15	2.6	3.3	15
MTEP-5	11.0	13.7	20	N/A	N/A	N/A	5.7	7.1	15	2.3	2.9	15

EVAPORATOR SECTION - WITH REHEAT AND HUMIDIFIER

TABLE NO. 10

Voltage/Phase/Hertz

MODEL	208/1/60			277/1/60			208-230/3/60			460/3/60		
	FLA	MCA	MFS	FLA	MCA	MFS	FLA	MCA	MFS	FLA	MCA	MFS
MTEP-1.5	28.6	35.7	45	22.9	28.6	35	N/A	N/A	N/A	N/A	N/A	N/A
MTEP-2	28.6	35.7	45	22.9	28.6	35	18.4	23.1	30	8.9	11.1	15
MTEP-3	28.6	35.7	45	22.9	28.6	35	18.4	23.1	30	8.9	11.1	15
MTEP-5	68.7	85.9	100	N/A	N/A	N/A	39.0	48.8	60	17.3	21.7	25

CONDENSING UNIT - PROPELLER FAN CONDENSING UNIT (PFCU)

TABLE NO. 11

Voltage/Phase/Hertz

MODEL	208/1/60			277/1/60			208-230/3/60			460/3/60		
	FLA	MCA	MFS	FLA	MCA	MFS	FLA	MCA	MFS	FLA	MCA	MFS
PFCU-1.5	11.2	13.6	20	9.8	11.6	20	N/A	N/A	N/A	N/A	N/A	N/A
PFCU-2	13.0	15.6	25	11.7	14.4	20	11.4	13.6	25	5.5	6.6	15
PFCU-3	21.2	25.9	45	18.9	23.0	30	14.2	16.9	30	6.9	8.2	15
PFCU-5	33.3	40.8	60	N/A	N/A	N/A	22.5	27.3	50	12.8	15.3	25

CONDENSING UNIT - CENTRIFUGAL FAN CONDENSING UNIT (CFCU)

TABLE NO. 12

Voltage/Phase/Hertz

MODEL	208/1/60			277/1/60			208-230/3/60			460/3/60		
	FLA	MCA	MFS	FLA	MCA	MFS	FLA	MCA	MFS	FLA	MCA	MFS
CFCU-1.5	14.0	16.1	25	12.1	13.9	20	N/A	N/A	N/A	N/A	N/A	N/A
CFCU-2	15.0	17.6	30	14.6	16.0	25	13.2	15.4	25	6.9	8.0	15
CFCU-3	23.0	27.6	40	21.2	25.3	40	17.0	19.8	35	8.3	9.8	20
CFCU-5	43.1	51.1	80	N/A	N/A	N/A	25.0	29.8	50	12.6	15.1	25

CONDENSING UNIT - WATER COOLED CONDENSING UNIT (WCCU)

TABLE NO. 13

Voltage/Phase/Hertz

MODEL	208/1/60			277/1/60			208-230/3/60			460/3/60		
	FLA	MCA	MFS	FLA	MCA	MFS	FLA	MCA	MFS	FLA	MCA	MFS
WCCU-1.5	8.4	10.5	20	7.3	9.1	20	N/A	N/A	N/A	N/A	N/A	N/A
WCCU-2	10.4	13.0	25	9.1	11.4	20	8.6	10.8	25	4.3	5.4	15
WCCU-3	18.4	23.0	40	16.4	20.5	30	11.4	14.3	30	5.7	7.1	15
WCCU-5	32.1	40.1	50	N/A	N/A	N/A	19.3	24.1	45	10.0	12.5	20

SCROLL / HERMETIC COMPRESSOR

TABLE NO. 14

Voltage/Phase/Hertz

SIZE/TON	208/1/60		277/1/60		208/3/60		460/3/60	
	RLA	LRA	RLA	LRA	RLA	LRA	RLA	LRA
1.5	8.4	52	7.3	45	N/A	N/A	N/A	N/A
2	10.4	60	9.1	54	8.6	55	4.3	27
3	18.4	95	16.4	83	11.4	77	5.7	39
5	32.1	169	N/A	N/A	19.3	137	10.0	62

PROPELLER FAN MOTOR

TABLE NO. 15

Voltage/Phase/Hertz

Hp	208/1/60		277/1/60		208/3/60		460/1/60	
1/2		2.8		N/A		N/A		1.2
3/4		3.2		N/A		N/A		2.8

CENTRIFUGAL FAN MOTOR

TABLE NO. 16

Voltage/Phase/Hertz

Hp	208/1/60		277/1/60		208/3/60		460/1/60		460/3/60	
1/4		1.4		1.3		N/A		N/A		N/A
1/2		4.2		3.2		N/A		2.1		N/A
3/4		4.6		4.8		N/A		2.6		N/A
1		6.2		N/A		3.9		N/A		1.8
1.5		11.0		N/A		5.7		N/A		2.6

MECHANICAL SPECIFICATIONS

DESIGN REQUIREMENTS

The computer room environmental control system shall be MINI-TEMP-Plus as manufactured by COMPU-AIRE, INC. It shall be split with an evaporator section and an outdoor propeller fan condensing section or indoor/outdoor centrifugal fan condensing section or an indoor water/glycol cooled condensing section.

Each system shall handle _____ CFM (CMH) at _____ " of E.S.P. (kPa) with a supply air fan _____ HP.

The unit shall have a straight through airflow discharge or down flow with a factory provided concentric diffuser (not applicable to 5 Ton system). The system shall have a cooling capacity of _____ BTU/HR(kW) total and _____ BTU/HR(kW) sensible based on the entering air condition of _____ °F(°C) DB, and _____ °F(°C) WB.

The system shall be supplied with _____ VOLTS, _____ PH, _____ HZ power supply.

The humidifier shall have a capacity of _____ LBS/HR(KG/H).

Reheat shall be _____ KW and a capacity of _____ BTU/HR(KW).

EVAPORATOR SECTION (MTE)

FRAME AND CABINET - The frame shall be constructed of heavy duty galvanized steel. the exterior access panels shall be insulated with a minimum 1", 1 1/2 lb.. density fiber insulation. All access panels shall be provided with captive fasteners.

FAN - The fan shall be of a centrifugal type, DIDW direct drive. The fan shall be located to blow air over the coil. A pressure plate shall be installed on the down stream side of the supply fan to ensure even air flow over the coil. 5 Ton unit shall be draw thru Belt Drive.

DIRECT EXPANSION COIL - The evaporator coil shall have _____ SQ. FT.(M) face area, _____ rows deep and shall be 12 fins per inch. It shall be constructed of copper tubes and aluminum fins. The coil shall provide two steps of cooling on the 5 ton unit as an option. The condensate pan shall be constructed of galvanized steel.

REFRIGERANT CIRCUIT - Refrigerant circuit shall be provided with:

- * Externally Equalized Expansion Valve
- * Filter Dryer in liquid line
- * Sight Glass with moisture indicator

CONDENSING SECTION

Split System Air Cooled

PFCU (Propeller Fan Type Air Cooled Condensing Unit)

Propeller fan type condensing unit shall be constructed of galvanized steel and shall be designed for outdoor installation with a weatherized enamel finish. The condenser coil shall be constructed of copper tubes and aluminum fins. The refrigeration system shall consist of a heat pump duty hermetic compressor, low and high pressure safety switches, and a crankcase heater. All components shall be factory assembled, charged with holding refrigerant, sealed and capable of being connected to the evaporator section using either pre-charged refrigerant line set or field provided lines. The condensing unit shall be designed for operation at 95°F(35°C) summer ambient and 50°F(11°C) winter ambient with fan cycling controls.

CFCU (Centrifugal Fan Condensing Unit)

Centrifugal fan type condensing unit shall be constructed of galvanized steel and shall be designed for outdoor installation with a weatherized enamel finish. The condenser coil shall be constructed of copper tubes and aluminum fins. The refrigeration system shall consist of a heat pump duty hermetic compressor, low and high pressure safety switches, and a crankcase heater. All components shall be factory assembled, charged with refrigerant, sealed and capable of being connected to the evaporator section using either pre-charged refrigerant line set or field provided lines. The condensing unit shall be designed for operation at 95°F(35°C) summer ambient and 50°F(11°C) winter ambient with fan cycling controls.

WCCU (Water or Glycol Cooled Condensing Unit)

The water/glycol cooled condensing unit shall consist of a heat pump duty hermetic compressor, low and high pressure safety switches, a crankcase heater and a tube-in-tube type co-axial water cooled condenser.

MECHANICAL SPECIFICATIONS (continue)

The coaxial counterflow water cooled condenser shall utilize _____°F(°C) entering water (glycol) temperature with a flow rate of _____GPM(L/S). The condenser circuit shall be factory piped with a head pressure actuated 2-way regulating valve with manual bypass.

All components shall be factory assembled, charged with refrigerant, sealed and capable of being connected to the evaporator section using either pre-charged refrigerant line set or field provided lines.

DFC (Dry Fluid Cooler)

Air cooled fluid cooler made of galvanized steel, high efficiency fan and motor, aluminum blades, built in thermal overload protection, coil are high efficient 1/2" copper tubes with aluminum fins, and venturi fan discharge panels and fan cycling contactors with temperature sensors.

Glycol Pump Package for use with WCCU and DFC

This system shall be provided with a centrifugal pump mounted in a weatherproof and vented enclosure. The pump shall be rated for HP GPM (L/S) at _____Ft. of water (kPA) head, and operate on _____volt, _____phase _____HZ. Pump is single or dual redundant package.

System requires one of the following control packages:

CHILLED WATER SYSTEM MTC-P FEATURES

CHILLED WATER COIL - The cooling coil shall have a minimum of _____SQ. FT.(M) face area, _____rows deep. The coil shall be constructed of copper tubes and aluminum fins. The chilled water unit shall be supplied with _____°F(°C) entering water temperature, with a _____°F(°C) temperature rise. The coil shall be supplied with _____GPM(L/S) of chilled water and the pressure drop shall not exceed _____Ft. of water(kPA). The coil shall be mounted on a stainless steel condensate drain pan.

CHILLED WATER CONTROL - The water circuit shall be provided with a 2-way control valve. The thermostat control shall energize the valve motor in response to return air temperature.

CONTROLS

1. REMOTE WALL MOUNTED THERMOSTAT (STANDARD)

A remote wall thermostat consisting of ON/OFF switch and _____stage of cool and _____stage of heating shall be provided for field mounting.

2. MICROPROCESSOR CONTROL SYSTEM (OPTIONAL)

CONTROL PARAMETERS

Temperature setpoint

65-85°F

Temperature Sensitivity

±1 to ±5°F

Humidity Setpoint

40-60%RH

Humidity Sensitivity

±1% to ±10%RH

5 Day/2 Day setback/setup programming

Monitoring

Operating Modes shall be:

Cooling, Heating, Humidification, Dehumidification shall be displayed on the alphanumeric display window.

ALARMS - The control system shall monitor unit operation and activate an audible and visible alarm in the event of any of the following alarm conditions:

High Pressure

Low Pressure

High Temperature

Low Temperature

High Humidity

Low Humidity

Change Filters

Loss of Air

Condensate Overflow (optional)

Multiple unit lead las operation (optional)

Remote communications (optional)

Effective zone control (optional)

Customer required alarm message(max.2)(optional)

Smoke Detected (optional)

A common summary alarm light and alarm shall be activated when any of the above conditions exist.

WARRANTY: Standard limited one year warranty is in effect to insure unit to be free from defects in material and workmanship. Limited to parts replacement and guarantees extended from our original components parts manufacturer or vendor.

A COMPANY IS MEASURED – BY THE COMPANY IT KEEPS –

Minority Business Enterprise

LOS ALAMITOS NATIONAL LABORATORIES • UNIVERSITY OF WISCONSIN • E.F.HUTTON • EQUITABLE LIFE INSURANCE • PRINCETON UNIVERSITY • DEPARTMENT OF ENERGY • UNIVERSITY OF MISSOURI • DISNEY CORPORATION • MARTIN MARIETTA • THIOKOL CORPORATION • UNIVERSITY OF CALIFORNIA • FEDERAL AVIATION ADMINISTRATION • NATIONAL STEEL CORPORATION • UNIVERSITY OF ARIZONA • VETERANS ADMINISTRATION HOSPITALS • SANDIA CORPORATION • CIBA-GEIGY CORPORATION • DEPARTMENT OF NAVY RAYTHEON CORPORATION • AMOCO-UNISYS CORPORATION • UNIVERSITY OF HOUSTON • BUREAU OF LAND MANAGEMENT • GENERAL SERVICES ADMINISTRATION • BURLINGTON NORTHERN RAILROAD • UNITED STATES POST OFFICE • CIGNA CORP • US AIR FORCE ACADEMY • UNIVERSITY OF NEW MEXICO DATA GENERAL CORP. • JET PROPULSION LABORATORIES • FIRST INTERSTATE BANK • MCCLELLAN AFB NASA • MOBIL OIL MOTOROLA CORP. SHELL OIL • IRS GENERAL MOTORS DELTA AIRLINES BANK OF AMERICA PRIME COMPUTER HONEYWELL INC. GENERAL DYNAMICS J. C. PENNEY INC. BECHTEL CORP. ROCKWELL INT'L FORD MOTOR CO. DIGITAL CORP.



WELLS FARGO BANK LOCKHEED CORP. ITT CANNON INC. GENERAL ELECTRIC UNIVERSAL STUDIOS LORD & TAYLOR CO. VANDENBERG AFB NY LIFE INSURANCE MERRILL LYNCH INC. STATE OF TEXAS GOOD YEAR TIRE INC. AVIS RENT-A-CAR THE PENTAGON CONOCO CORP. BLUE CROSS/BLUE SHIELD • MACY'S CORPORATION • MCDONNELLDUGLAS CORP. • WEYERHAEUSER CORP. • BELL & HOWELL INC. • FISHER CONTROLS, INC. • UNIVERSITY OF MONTREAL • HOSPITAL CORP. OF AMERICA • UNIVERSITY OF TENNESSEE • DEPARTMENT OF THE INTERIOR • ROYAL BANK OF CANADA ALLSTATE INSURANCE CO. • ARMAND HAMMER MUSEUM • OWENS CORNING CORP • FORD AEROSPACE CORP. • US ARMY CORPS OF ENGINEERS • DEPARTMENT OF DEFENSE • MITSUBISHI ELECTRONICS • WHITE SAND MISSILE RANGE • BOEING CORPORATION • INGERSOLL RAND CORP • GTE INC. • AT&T INC. IBM CORP. SEIMENS INC. • XEROX CORP. • ELGIN AFB • KELLYAFB • US WEST INC. • HOLLAMAN AFB • HUGHES CORP. FALCON AFB • AC DELCO CO. • TOYOTA CORP. • PACIFIC BELL • LTV STEEL • SYNTEC CORP. KIRTLAND AFB



8167 Byron Road
Whittier, CA 90606-2615
(562) 945-8971 phone
(562) 696-0724 fax
web site: www.compu-aire.com

While every precaution has been taken to ensure accuracy and completeness in this brochure, Compu-Aire, Inc. assumes no responsibility and disclaims all liability for damages resulting from use of this information or for any errors or omissions. Subject to change without notice.