WAUBONSEE COMMUNITY COLLEGE

ADDENDUM 2

PROJECT: **08-22-002 Data Cooling System Bid**
BID / TIME DUE: ~~**September 15, 2022 at 2:00 p.m.**~~ **SEPTEMBER 22, 2022 AT 2:00 P.M.**

Bidder must acknowledge receipt of this addendum.

CHANGES/CLARIFICATIONS

Waubonsee Community College has recently confirmed that one of the three accepted brands (Data Aire) is closing its doors at the end of the 2022 year. This manufacturer is DELETED from the acceptable brand list and will be rejected from any future bids.

We have also determined that the brands Liebert and Stulz may be on delays unacceptable to the college's mission to replace a failing cooling system within an appropriate schedule.

Timeliness is of the essence. In an effort to include another option of equal or greater specification, Waubonsee Community College has approved the brand ClimateWorx. Liebert and Stulz remain acceptable brands, however please add ClimateWorx as an approved manufacturer for this project. In light of these circumstances, Waubonsee Community College invites our bidding contractors to provide an alternative manufacturer/product matching or exceeding the specifications required in the bid manual. This will be provided as an OPTION in addition to the bid on any of the other three approved brands.

The required specifications would still stand (Cold weather performance with dehumidification, water level alarming and all listed advance notification alarms). It will need to have the ability to interface into our Johnson Control system (Bacnet) to provide remote monitoring and alarm notification.

Bidders may provide a Bid for Liebert, Stulz, and/or ClimateWorx-provide approximate equipment availability date with bid.

1. Bidders may provide a Bid for alternate equipment of equal or greater specification (Comparable to Liebert/ Stulz/ ClimatWorx)- provide a specification sheet-approximate equipment availability date.
    a. **Alternate Bids shall be placed in a separate, sealed envelope, labeled clearly as ALTERNATE BID and include all bid pages as identified in the Bid package.**

QUESTIONS

2. There was no tag on the unit on the roof in order for us to get information on replacement. Can someone please provide that info so we can quote?
    a. **See information provided on the following pages.**

This addendum does change the bid due date or time.

END OF DOCUMENT

Liebert

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Facsimile: 614-841-6973

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Liebert Europe
Via Leonardo Da Vinci 8
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Italy
Telephone: 39-049-9719-111
Facsimile: 39-049-5841-257

Hong Kong Headquarters
Liebert Hong Kong
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Wanchai
Hong Kong
Telephone: 852-2-572-2201
Facsimile: 852-2-831-0114

SMALL SYSTEMS 50&60 HZ
Mini – Mate 2
SPLIT SYSTEM
3 Ton

Job Name	WAUBONSEE COLLEGE - HENNING
Model	**MMD36E-P00D0 & PFH037A-YL3**
Quantity	One (1) System
Date	
Invoice #	
Purchaser	
P.O. #	
Tag #	
Submitted By	

SMALL SYSTEMS
MINI-MATE 2 3-TON
SPLIT SYSTEM
ENGINEERING SPECIFICATION SHEET

Project Name: WAUBONSEE COLLEGE - HENNING
Date:
Reference No.: Q01144080
Submitted By:

Model Number: MMD36E-P00D0 Qty: 1
Condensing Model Number: PFH037A-YL3 Qty: 1

ELECTRICAL SUPPLY REQUIREMENTS

Module: 208/230 Volts, 1-Phase, 60 Hertz, 2.8 Full Load Amps, 3.5 Wire Sizing Amps & 15A OPD
Condensing Module: 208/230 Volt, 3 Phase, 60 Hertz, 12.8 Full Load Amps, 15.7 Wire Sizing Amps & 25A OPD

NET CAPACITY DATA
- 72ºF DB -- 60ºF WB
- 50% RH
- Total – High Speed: 33,400 btu
  Low Speed: 32,900 btu
- Sensible – High Speed: 27,800 btu
  Low Speed: 25,200 btu

EVAPORATOR FAN
- Fan Motor Horsepower: 0.5 (0.3 kW)
- Direct Drive Motor
- Air Volume – High Speed: 1250 CFM
  Low Speed: 1000 CFM
- External Static Pressure: 0.3 Inches of Water

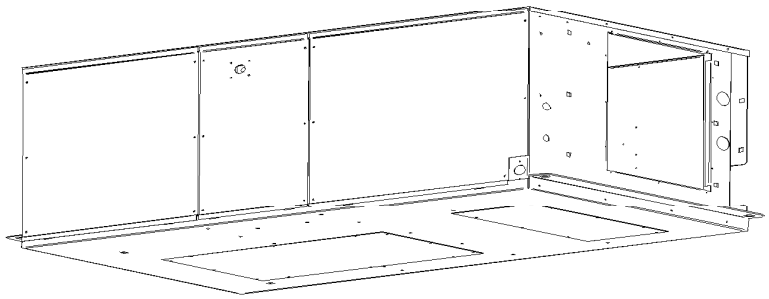
CONDENSING SECTION
- Design Ambient: 95ºF to (-30ºF)
- Outdoor Lee-Temp Propeller Condensing Unit
- Hot Gas Bypass

OPTIONAL EQUIPMENT
- Sweat Adapter Kit
- Filter Box with 4" – 20% Filters
- Disconnect Switch (MMD36E Only)
- Leak Detection Sensor

SMALL SYSTEMS

2-ton and 3-ton MINI-MATE2

DIRECT EXPANSION FAN/COIL MODULE



STANDARD FEATURES

EVAPORATOR COIL Constructed of copper tubes in a staggered tube pattern. Tubes are expanded into continuous high efficiency aluminum lance type fins. Coil is set in a stainless steel condensate drain pan, with float switch for unit shutdown.

REFRIGERATION SYSTEM Single refrigeration circuit, includes a liquid line filter drier, externally equalized expansion valve, and a quick-connect female coupling on both the suction and liquid lines. Each female coupling is provided with an access valve connection. The module is precharged with refrigerant and sealed.

FAN ASSEMBLY Centrifugal type, double width, double inlet, with a direct drive 2-speed fan motor mounted to the blower housing and includes lifetime lubricated bearings.

CONTROLS Microprocessor based design includes membrane key pad for setpoint and program control, unit on/off, and fan speed mounted in a decorative wall box for remote mounting.

CABINET AND CHASSIS Constructed of galvanized steel for strength and corrosion resistance with thermal/acoustical insulation to reduce sound levels and prevent condensation. Removable panels allow access to the electric panel or refrigeration components for service or maintenance. Vibration isolators are provided with the chassis for mounting.

SMALL SYSTEMS

2-ton and 3-ton MINI-MATE2

DIRECT EXPANSION FAN/COIL MODULE

OPTIONAL FEATURES (Split DX Systems)

UNIT DISCONNECT SWITCH consists of a "non-locking type", non-automatic molded case circuit interrupter mounted inside the unit.

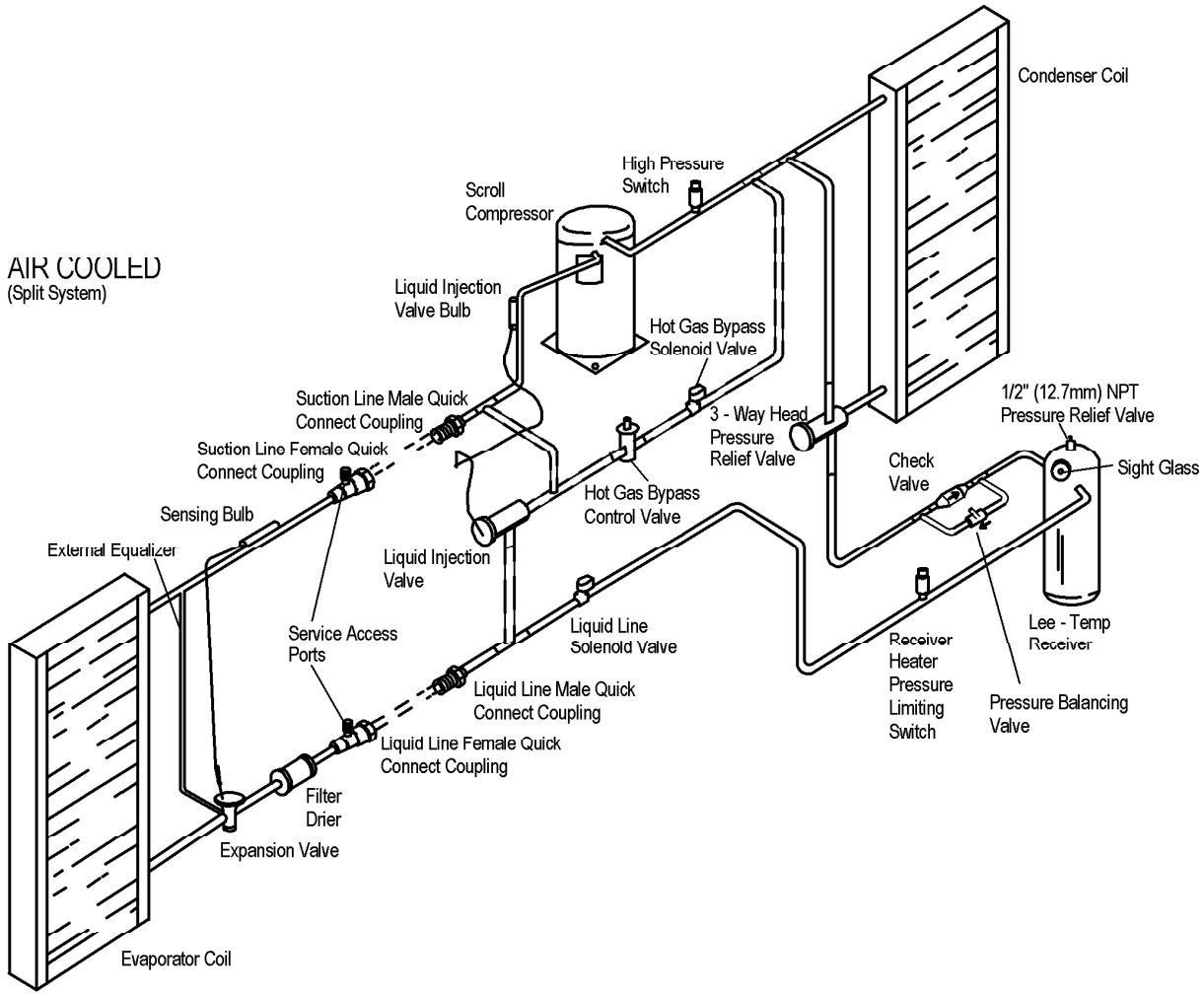
SHIP LOOSE OPTIONS

FILTER BOX is constructed of galvanized steel, supplied with a nominal 16"(406mm) x 20"(508 mm) x 4" (102 mm) deep pleated filter with a minimum efficiency rating of 20% (based on ASHRAE 52.1). The box is provided with a ¾" (19 mm) duct flange. The filter is accessible via a hinged access door, without shutting the unit down. The filter box option also includes a ¾" (19 mm) discharge air duct collar.

SWEAT ADAPTER KIT Contains two suction and two liquid compatible fittings that allow field-supplied interconnecting refrigerant lines to be used. See installation, operation and maintenance manual for maximum recommended installed distances.

LEAK DETECTION SENSOR

SMALL SYSTEMS
2 & 3 TON MINI-MATE2
GENERAL ARRANGEMENT DIAGRAM
SPLIT SYSTEMS
AIR & CHILLED WATER FAN COIL



* Field piping refers to the use of hard piping using sweat adapter kit or precharged line set.

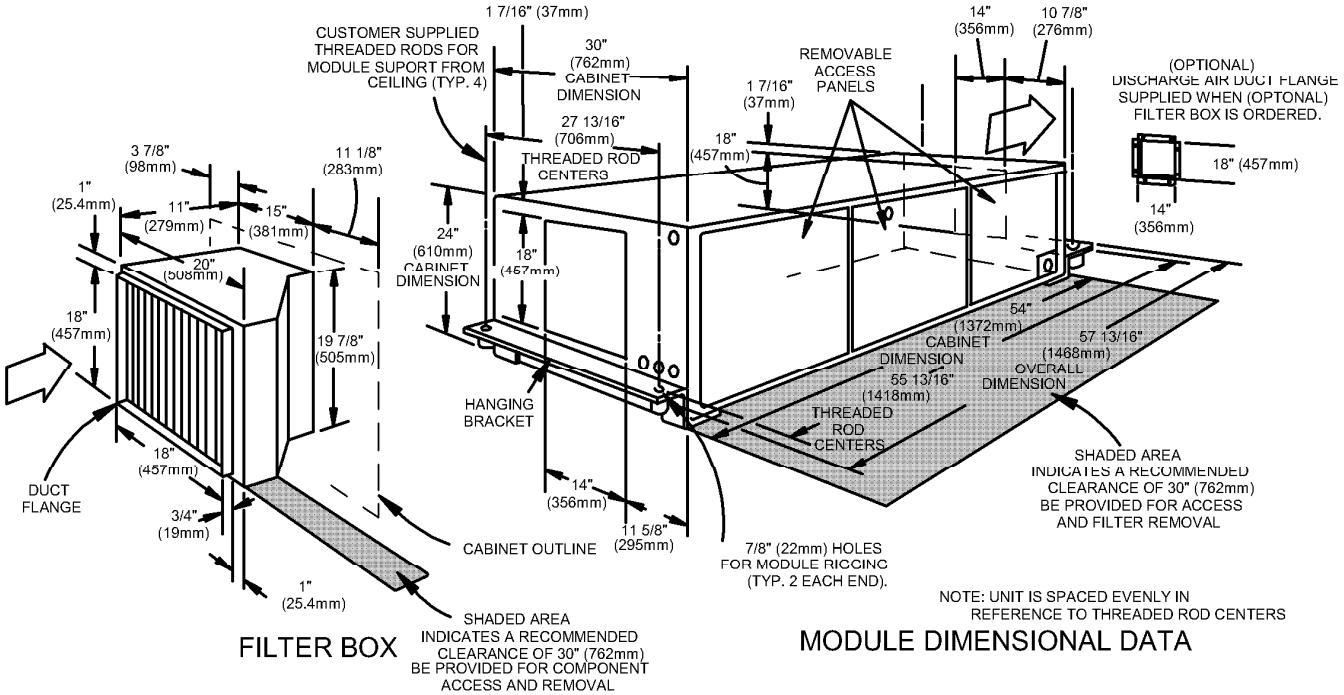
= = = = = = = FIELD PIPING

FACTORY PIPING

DPN000191

REV 07/03
REV 0

SMALL SYSTEMS
2 & 3 TON MINI-MATE2
FAN/COIL MODULE DIMENSIONAL DATA
AIR, WATER/GLYCOL & CHILLED WATER WITH DIRECT DRIVE BLOWER



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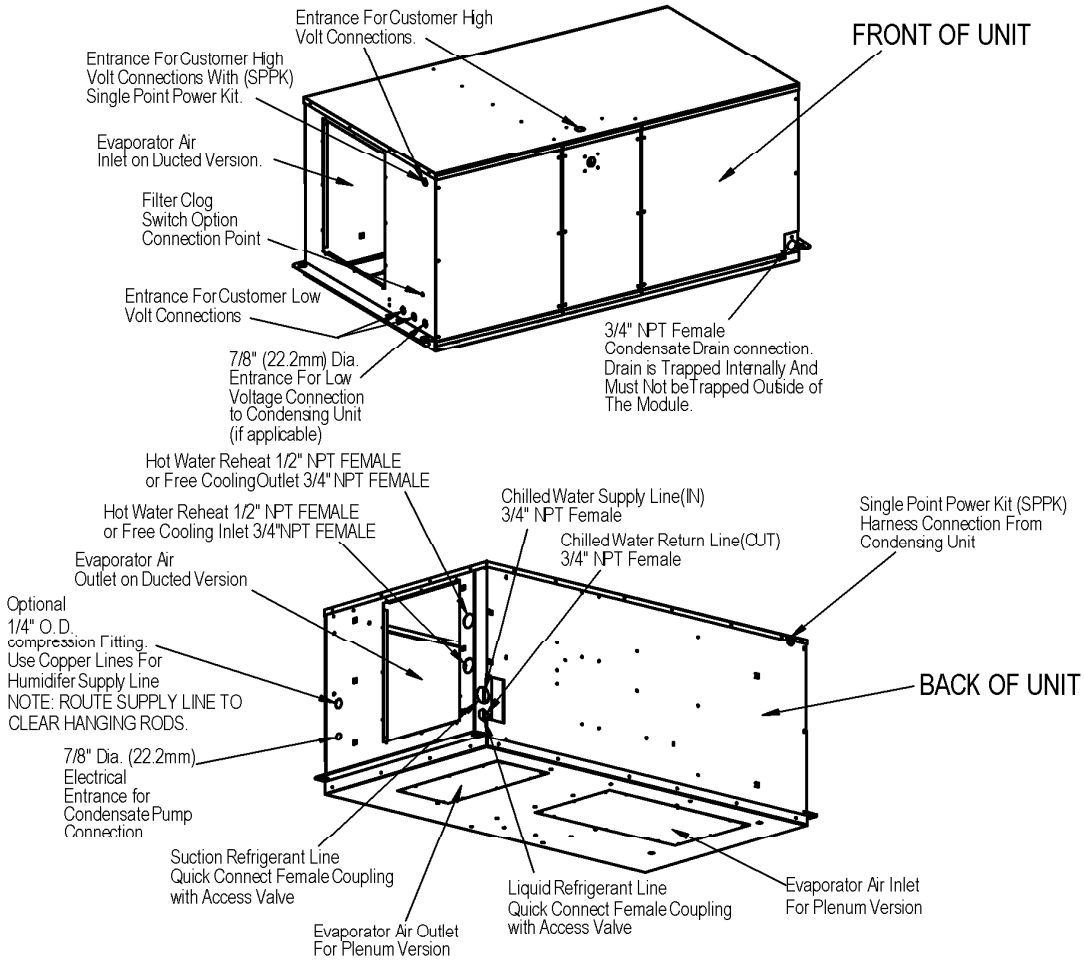
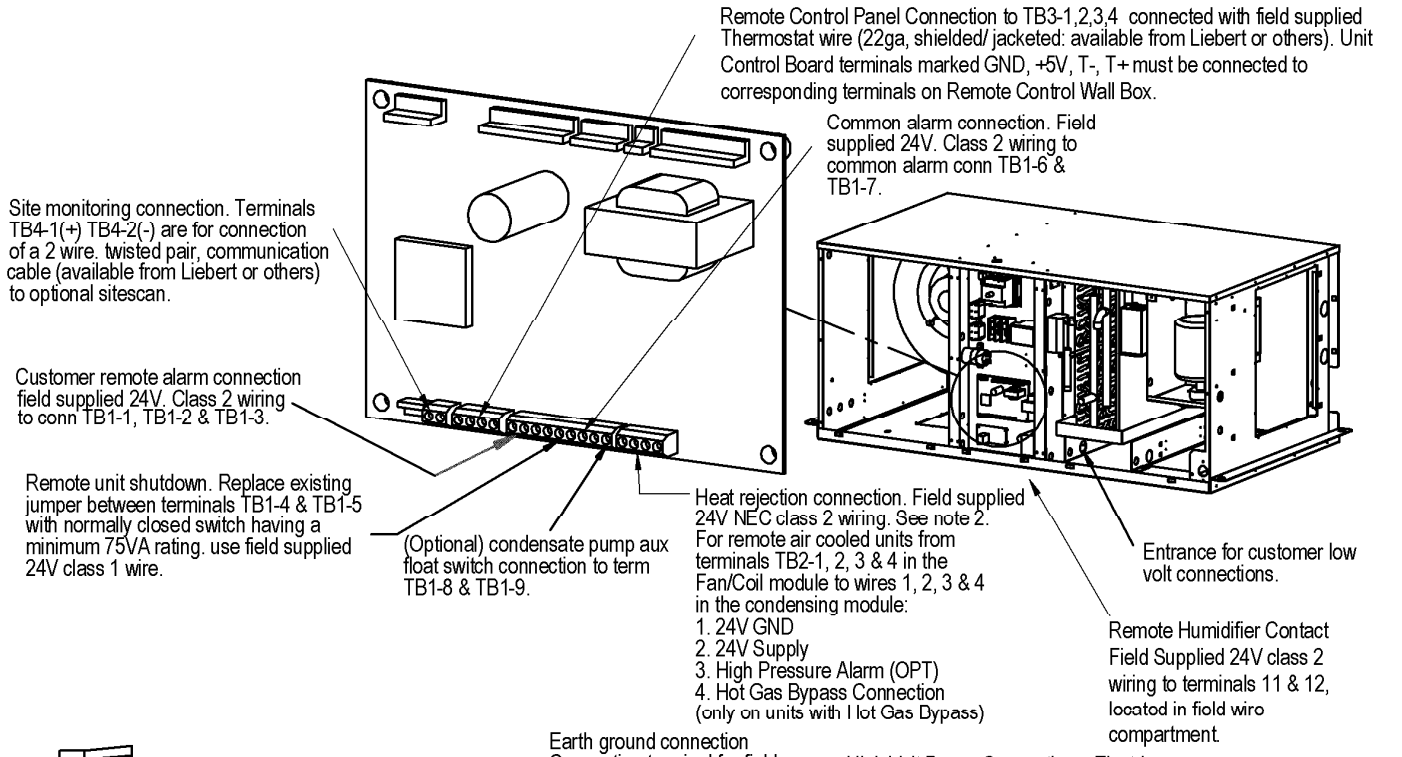
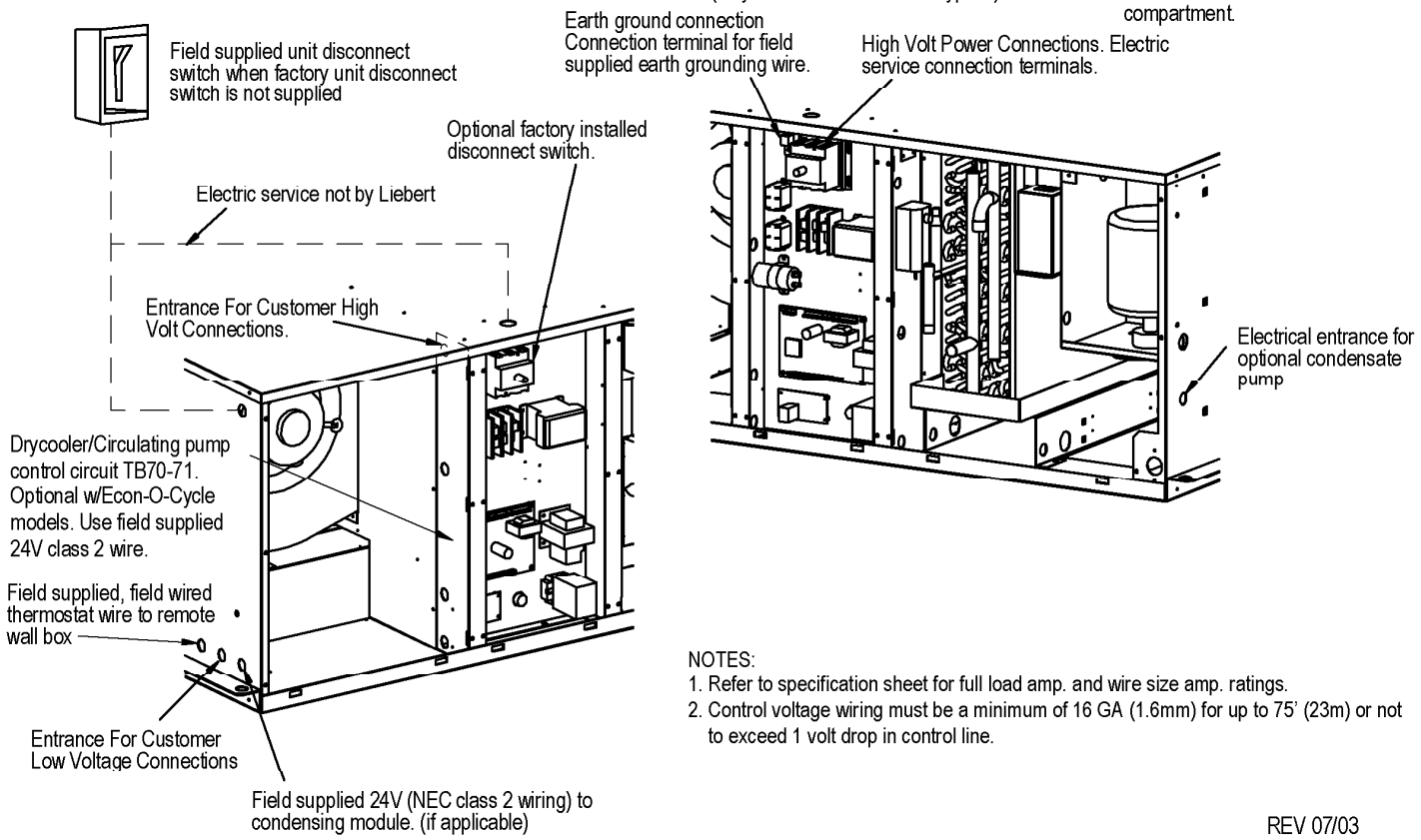
REV 07/03
REV 0

SMALL SYSTEMS
2 & 3 TON MINI-MATE2
UNIT PIPING DATA
AIR, WATER/GLYCOL & CHILLED WATER



SMALL SYSTEMS
2 & 3 TON MINI-MATE2
ELECTRICAL FIELD CONNECTIONS





NOTES:
1. Refer to specification sheet for full load amp. and wire size amp. ratings.
2. Control voltage wiring must be a minimum of 16 GA (1.6mm) for up to 75' (23m) or not to exceed 1 volt drop in control line.

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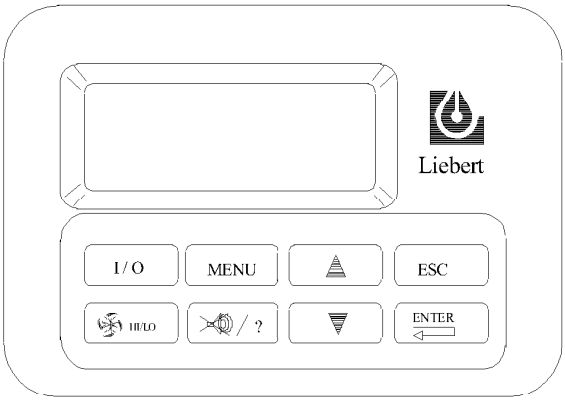
REMOTE CONTROL
AND MONITORING WALL BOX
STANDARD SMALL SYSTEMS MICROPROCESSOR CONTROL



GENERAL

BUTTON CONTROL allows full function modification of all running parameters. The 8 key membrane keypad includes on/off, fan speed, menu, alarm silence, increase, decrease, escape & enter.

DISPLAY A 2 line x 16 character LCD which displays all monitoring, control, alarm, and diagnostic information.

ALARMS are displayed on the LCD display with audible alarm.

COMMON ALARM connections are provided for remote annunciation of unit alarms (compatible with SITE SCAN).

STANDARD ALARMS

TEMPERATURE high and low thresholds are programmable between 35 °F and 95 °F (1.6 °C and 32.2 °C). The alarm indicates excessive high or low room air temperature.

HUMIDITY high and low thresholds are programmable between 15% RH and 85% RH. The alarm indicates excessive high or low room air humidity.

HIGH HEAD Indicates a head pressure above factory preset point, and provides compressor cutout.

SHORT CYCLE ALARM Indicates the compressor has turned off-on-off at least 10 times in a one hour period.

LOSS OF POWER Indicates that a power interruption has occurred.

HIGH WATER ALARM Indicates high water level in condensate pan, and shuts down unit.

OPTIONAL ALARMS

The following alarms are available when the appropriate options are included with the unit. A maximum of two(2) alarms from the list below.

Change Filters Indicates that the pressure drop across the filters has exceeded the pre-set level.

Humidifier Problem Indicates excessive high water levels in the humidifier canister.

Water Detected Indicates that water has been detected at a customer specified location.

Smoke Detected Indicates that smoke has been detected, and unit shutdown.

FEATURES OF THE MONITOR

MONITOR Room conditions, operating status, alarms.

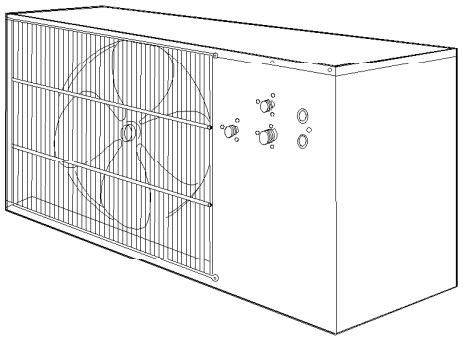
SET-UP Password protected programming of various time delays and unit configurations.

SETPOINT Password protected programming of operational setpoints/alarms.

5 DAY/ 2 DAY PROGRAMMABILITY 2 changes per day for temperature and humidity control setpoints.

TEMPERATURE AND HUMIDITY SENSOR CALIBRATION can be adjusted from ±5 °F/±10% RH to match local measuring device.

PROP FAN CONDENSING MODULES



STANDARD FEATURES

COMPRESSOR The 1½ - 8 ton PFH condensing units shall have a compliant scroll compressor with a suction gas cooled motor, vibration isolators, thermal overloads, internal centrifugal oil pump for forced feed lubrication, a maximum operating speed of 3500 RPM @ 60 HZ (2900 @ 50 HZ). The 1 ton PFH condensing unit shall have a reciprocating hermetic compressor. The 8 ton PFH is a dual compressor design with 3 ton and 5 ton compressors.

CONDENSER COIL Constructed of copper tubes in a staggered tube pattern. Tubes are expanded into continuous high efficiency aluminum plate type fins. Coil is set in a drain pan for condenser coil washdown.

REFRIGERATION SYSTEM **Single refrigeration circuit**, includes, suction and liquid line quick connect male couplings. The module is precharged with refrigerant and sealed. The 8 ton PFH includes two refrigeration circuits.

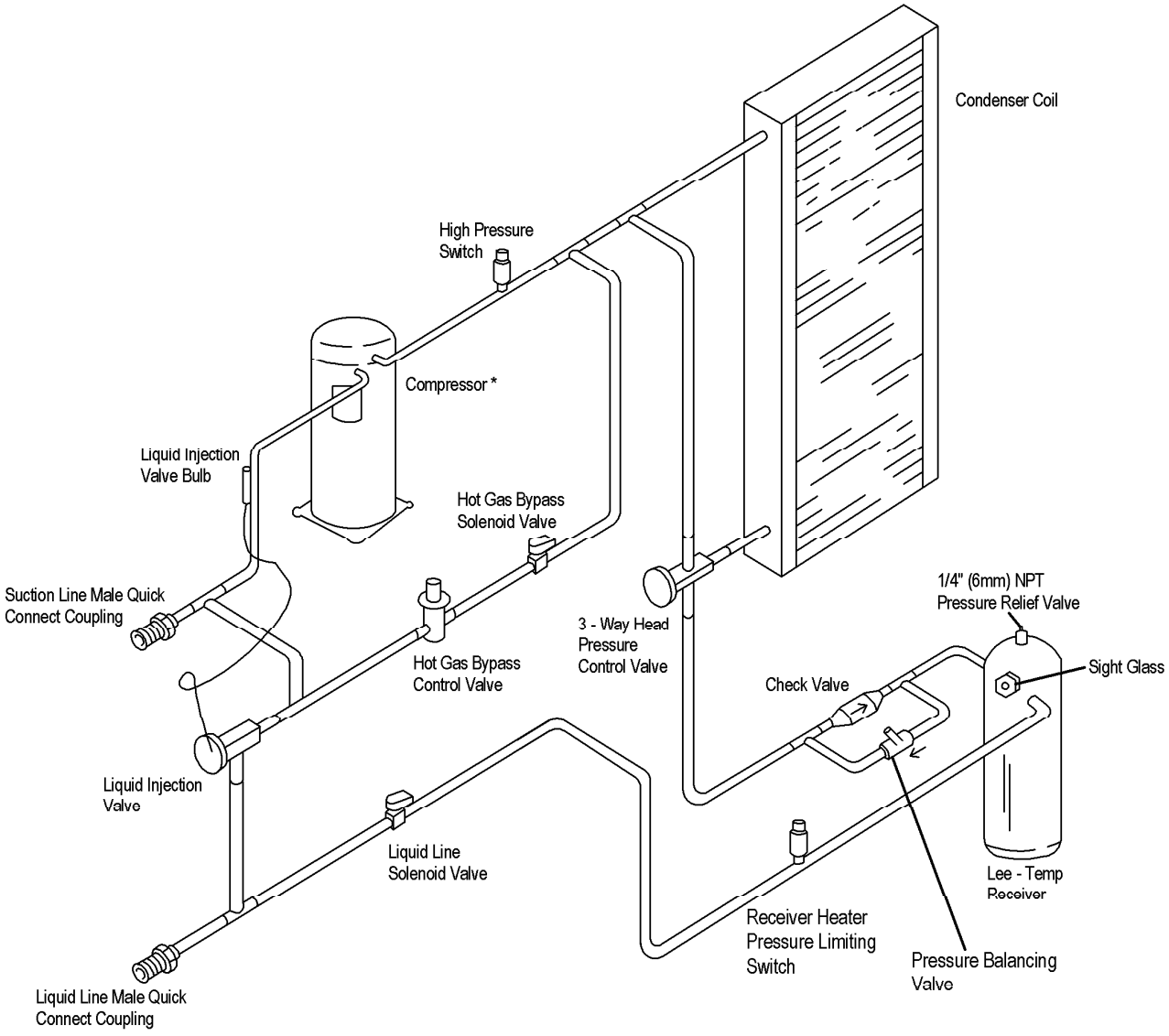
HOT GAS BYPASS Factory piped hot gas solenoid valve and pressure regulating valve work in conjunction with a thermostatic liquid injection valve. This system allows operation down to zero load on the evaporating (indoor) module. Both circuits on the 8 ton model receive HGBP.

FAN ASSEMBLY Consists of propeller type blades, constructed of zinc plated steel or aluminum, secured to the motor shaft by a heavy duty hub with set screws. Direct drive fan motors are provided with rain slingers, lifetime lubricated bearings, and internal overload protection.

CABINET AND CHASSIS Designed for outdoor use with either roof or ground level mounting. The condensing module is constructed of galvanized and galvaneal painted steel for corrosion resistance. Both inlet and outlet air grilles are heavy duty steel with a durable P.V.C. coating. Removable exterior panels allow access to the electric panel or refrigeration components for service or maintenance.

HEAD PRESSURE CONTROL **A Liebert Lee-Temp control system** is furnished with each refrigeration circuit and consists of an insulated heated refrigerant receiver with sightglass, pressure relief valve, pressure balancing valve, check valve, and head pressure operated 3-way valve. This system allows operation at ambient conditions as low as -30 °F (-34 °C).

GENERAL PIPING ARRANGEMENT
PROP FAN CONDENSING MODULE



* Reciprocating compressor 1 Ton.
Scroll compressor 1 1/2 - 8 Tons.

SINGLE CIRCUIT SHOWN

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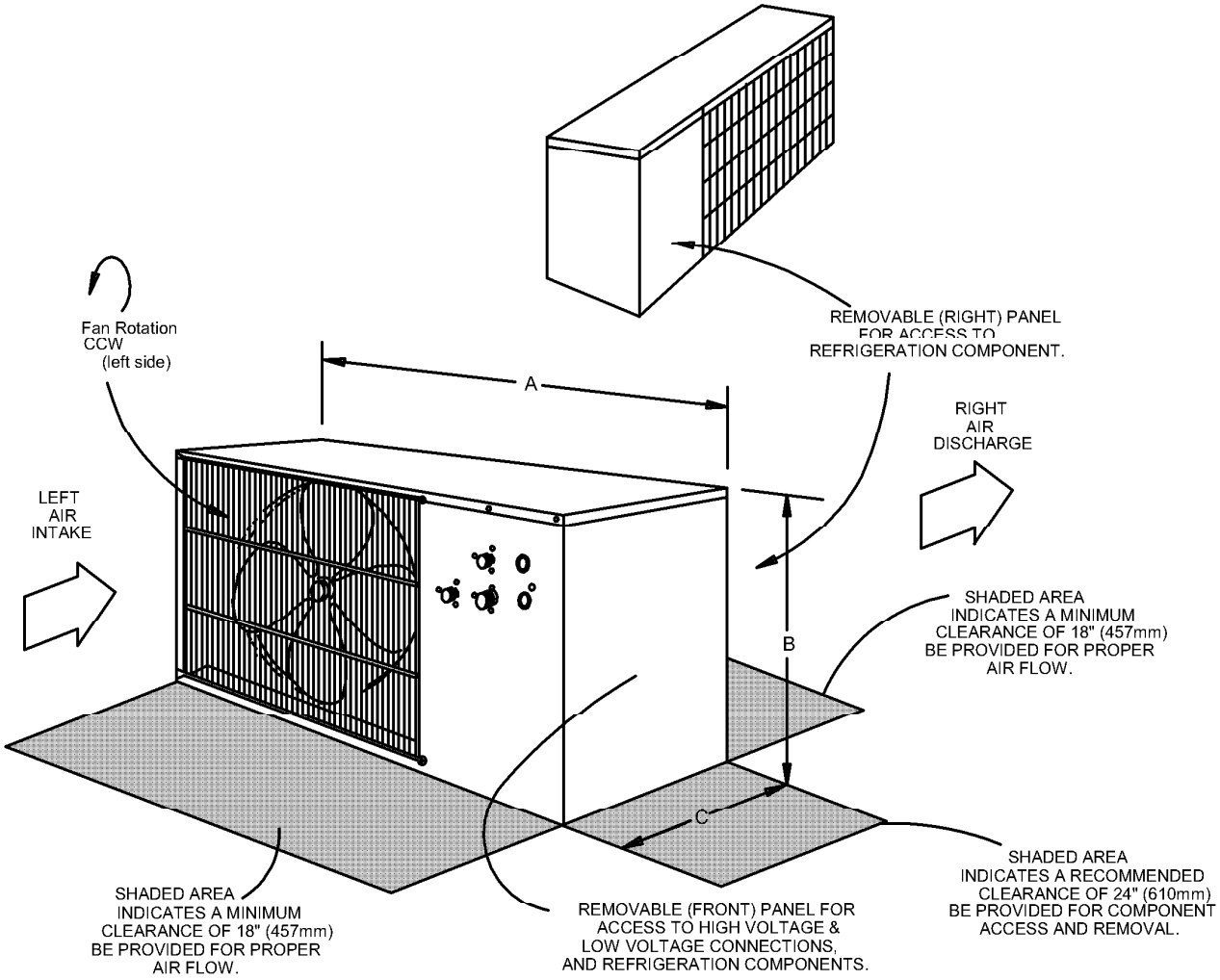
REV 07/03
REV 0

CABINET AND FLOOR PLANNING DIMENSIONAL DATA

PROP FAN CONDENSING MODULES

HORIZONTAL AIR DISCHARGE



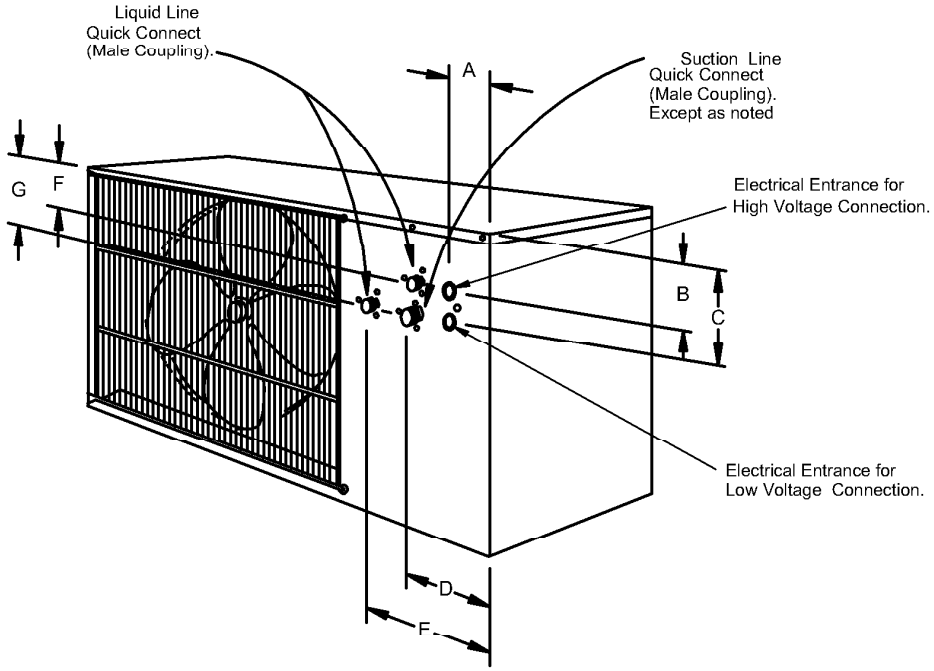
	MODEL NUMBERS		DIMENSIONAL DATA IN. (mm)			MODULE WEIGHT
	60 HZ	50HZ	A	B	C	lbs. (kg) net
	PFH014A-L	PFH013A-L	40 (1016)	23 1/2 (597)	18 (457)	200 (91)
	PFH020A-L	PFH019A-L				
	PFH027A-L	PFH026A-L				
	PFH027A-H	PFH026A-H	48 (1219)	31 (787)	18 (457)	241 (109)
	PFHZ27A-L	PFHZ26A-L				
→	PFH037A-L	PFH036A-L				
	PFH042A-L	PFH041A-L				
	PFH037A-H	PFH036A-H	53 (1343)	36 1/4 (918)	18 (457)	351 (159)
	PFHZ37A-L	PFHZ36A-L				
	PFH042A-H	PFH041A-H				
	PFHZ42A-L	PFHZ41A-L				
	PFH067A-L	PFH066A-L				

DPN000130

REV 07/03
REV 0

PIPING AND ELECTRICAL CONNECTIONS

HORIZONTAL AIR DISCHARGE



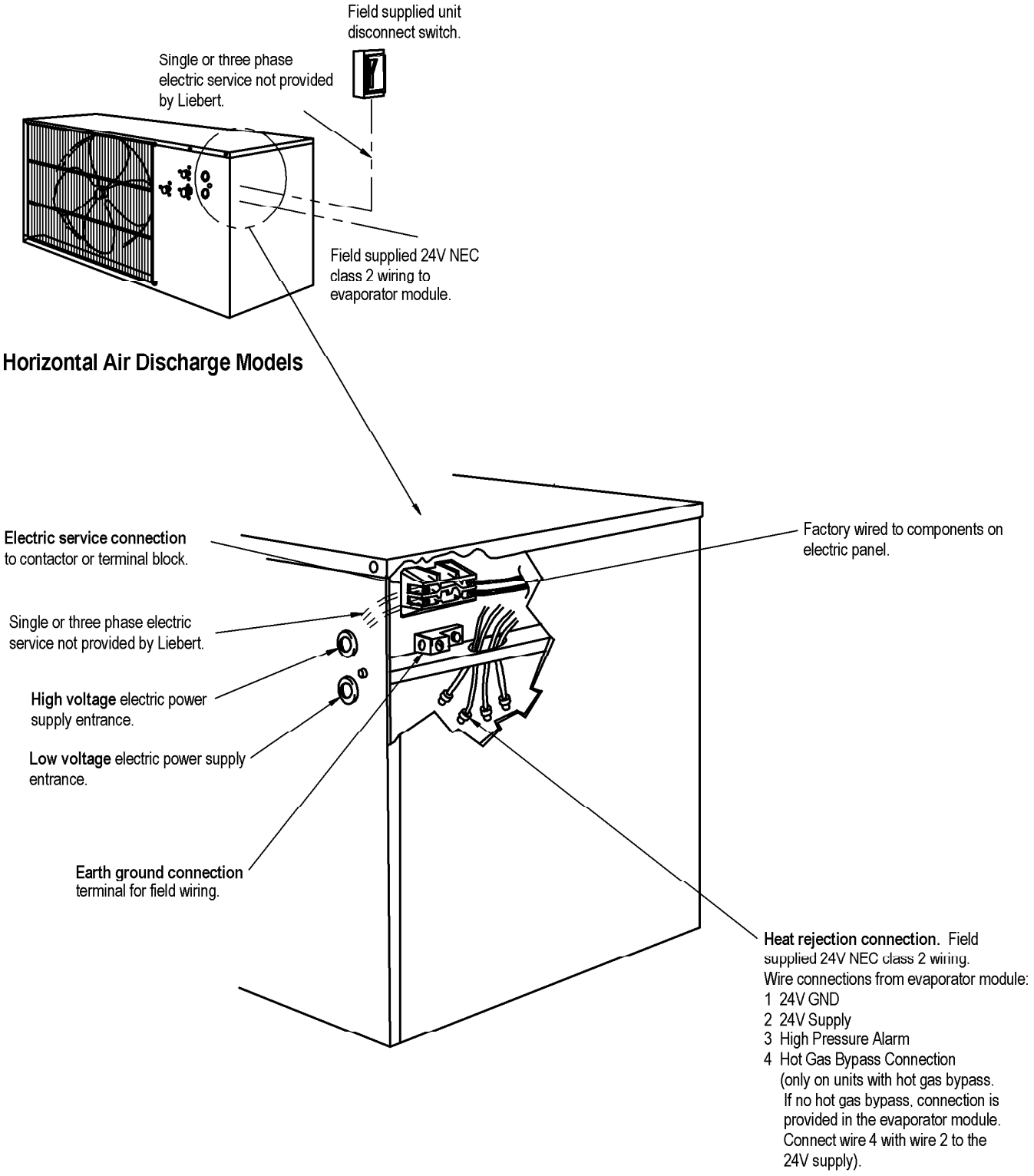
	MODEL NUMBERS		ELECTRICAL CONNECTIONS IN. (mm)			PIPING CONNECTIONS IN. (mm)			
	60 HZ	50 HZ	A	B	C	D	E	F	G
	PFH014A- L	PFH013A- L	2 1/4 (57)	5 1/4 (133)	7 3/4 (197)	8 3/4 (222)	-	5 (127)	7 1/4 (184)
	PFH020A- L	PFH019A- L							
	PFH027A- L	PFH026A- L							
	PFH027A- H	PFH026A- H	2 (51)	5 3/4 (146)	8 1/2 (216)	4 3/4 (121)	6 3/4 (171)	-	8 1/2 (216)
	PFHZ27A- L	PFHZ26A- L							
	PFH037A- L	PFH036A- L							
	PFH042A- L	PFH041A- L							
	PFH037A- H	PFH036A- H	2 (51)	6 (152)	8 1/2 (216)	4 3/4 (121)	7 3/4 (197)	-	8 1/2 (216)
	PFHZ37A- L	PFHZ36A- L							
	PFH042A- H	PFH041A- H							
	PFHZ42A- L	PFHZ41A- L							
	PFH067A- L	PFH066A- L							

DPN000132

REV 07/03
REV 0

ELECTRICAL FIELD CONNECTIONS

1 – 5 TON PROP FAN CONDENSING MODULE



NOTE: Refer to specification sheet for full load amp. and wire size amp. ratings