



Model MPL-3CZ

Air Cooled Refrigeration Systems

ITEM NO: _____

MINI-PAK REFRIGERATION SYSTEM

The packaged refrigeration system is to be U.L. Listed and will be located on a pad outside of the building. This unit includes the outdoor weather housing, compressor and condenser systems and electrical control panel, all housed within a single assembly. The evaporator coil assemblies will be supplied with all the required

options and accessories. All of the component parts, options and accessories will be provided, mounted, piped and wired, as required by the manufacturer. The system shall be manufactured to operate at: _____ volts, _____ phase, _____ hertz.

FRAME AND HOUSING

The outdoor weather shall include a welded, de-burred and cleaned structural steel base frame made of 12 gauge. The exterior housing and access doors will be manufactured of a minimum of 16 gauge galvanized steel which has been assembled and cleaned. The

frame and housing shall be painted with a primer coat of epoxy based paint and finished with a coat of polyurethane acrylic enamel.

COMPRESSOR AND CONDENSER SYSTEMS

All compressors will be Copelaweld, Copelametic or Discus. All compressors will be manufactured to operate with R-22 or R-404A refrigerant. Each Compressor system shall be filled with refrigerant compatible refrigeration oil by the manufacturer and will include discharge and suction line vibration protection (vibrasorbers Copelametic and Discus compressors), dual pressure control, liquid line filter-dryer, moisture indicating sight glass, and crankcase heater. Each of these systems shall also include a receiver tank capable of accepting all of the system refrigerant without exceeding 90% of its volumetric capacity. Each receiver will be provided with a pressure relief vent and, at its outlet, a roto-lock isolation valve with

a service port. Additionally, all compressor systems that will operate at suction temperatures below 0 °F shall include a suction line accumulator.

The condenser system shall include the Multi-Circuited condenser, 1/2 horse power condenser fan motors with 24 inch fan blades mounted in a venturi contoured air-scoop protected by plastic coated fan guards, and flooded head pressure controls. The compressors and condenser circuits shall be sized to operate at an average temperature differential between the ambient and condensing temperatures of 20°F.

CONTROL PANEL

All compressors will be Copelaweld, Copelametic or Discus. All compressors will be manufactured to operate with R-22 or R-404A refrigerant. Each Compressor system shall be filled with refrigerant compatible refrigeration oil by the manufacturer and will include discharge and suction line vibration protection (vibrasorbers Copelametic and Discus compressors), dual pressure control, liquid line filter-dryer, moisture indicating sight glass, and crankcase heater. Each of these systems shall also include a receiver tank capable of accepting all of the system refrigerant without exceeding 90% of its volumetric capacity. Each receiver will be provided with a pressure relief vent and, at its outlet, a roto-lock isolation valve with

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CONTROL PANEL

The interior mounted, weather proof, electrical control panel will be manufactured of 16 gauge galvanized steel which has been assembled, welded, de-burred and cleaned. The control panel shall be protected by an exterior mounted NEMA 3R rated fused disconnect switch and will include a removable cover, circuit breakers and contactors for each compressor, required defrost time

clocks; and circuit breakers, start capacitors, and fan cycle control thermostats for each of the condenser fan motors. A wiring diagram of the refrigeration system shall be provided and mounted inside of the refrigerated system. All internal wiring shall be held in place with fasteners and individually numbered. The wire numbers shall be shown on the wiring diagram.

EVAPORATOR COILS

The evaporator assemblies, and the parts associated with them, will be mounted inside of the walk-ins. Each evaporator coil shall include a matching thermostatic expansion valve, liquid line solenoid valve and thermostat. In cases where two (2) or more evaporator

coils are to be piped to a single compressor the thermostat and liquid line solenoid valve will be shipped loose to be mounted and wired at the job site.

INTERNAL REFRIGERATION PIPING

All of the internal refrigeration piping shall be extended to one side of the refrigeration system in a neat and orderly manner. Each set of piping shall have a label permanently affixed identifying the system it will service. All internal refrigeration piping shall be refrigerant grade A.C.R. or type L copper tubing. All tubing shall be held in place with Uni-Strut channels and clamps and protected with neoprene grommets. A minimum of 1/2 inch thick insulation shall cover all suction lines.

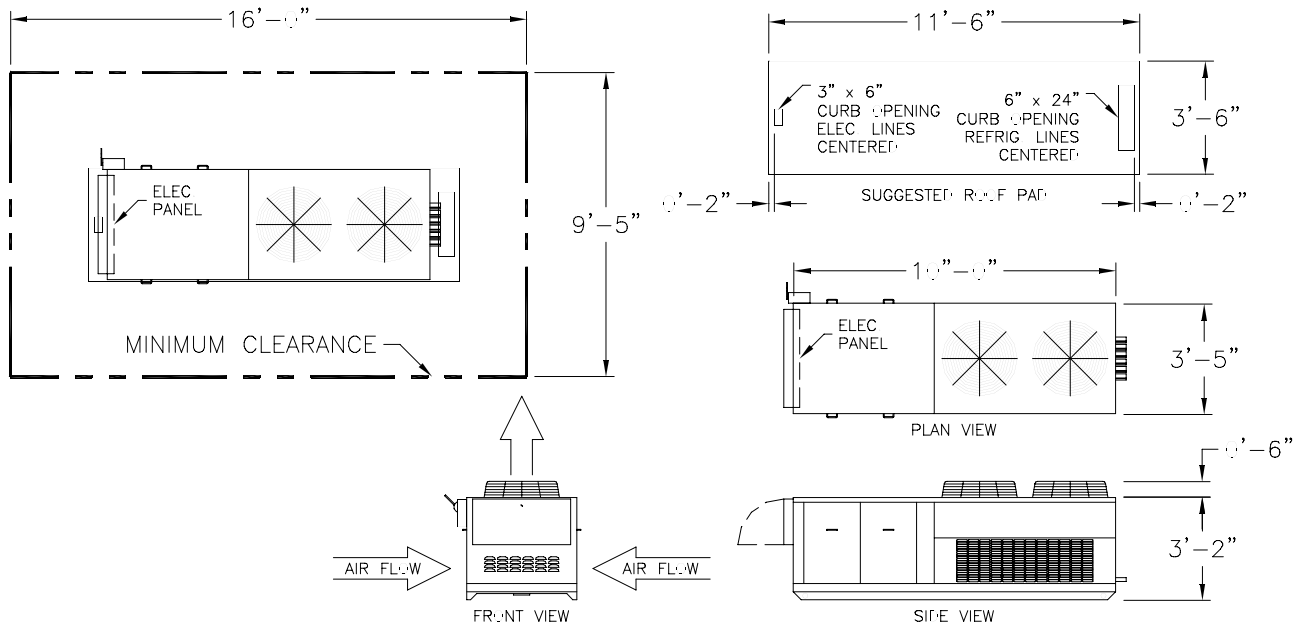
After circuiting the condenser shall be tested for leaks at a minimum pressure of 500 pounds per square inch/gauge (psig). After final assembly the entire system shall be tested for leaks at 300 psig and evacuated pressure test at 500 microns at the factory. The refrigeration system shall be shipped with a 25 psig charge of dry nitrogen.

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DIMENSIONAL DATA



PHYSICAL DATA

Maximum Total HP*	Maximum Number of Comp. (Spaces)**	Number of Fans	Typical Overall Dimensions (In.)			Approx. Weight (lbs.)
			Length	Width	Height	
12.0	7	2	120"	41"	44" O.A.	900-1300

* Total compressor HP will be determined by compressors used.

** 1/2 to 3 HP = 1 compressor space. 5 HP = 2 compressor spaces.

COMPRESSOR DATA

System	Item	Fixture Description	Freon	Compressor	Voltage	Evaporator(s)	Voltage

Note: Compressors are designed with matching evaporator coil. Consult factory for specific electrical data. Specifications are subject to change without notice.