



# **Model ET-3H**

## **Air Cooled Refrigeration Systems**

ITEM NO: \_\_\_\_\_

### **ENVIRO-THERM 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 3 inch members. 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 baked polyester powder coating.

### **COMPRESSOR AND CONDENSER SYSTEMS**

All compressors will be Copelaweld, Scroll, Copelametic or Discus. All compressors will be manufactured to operate with R-448A, R-449A, R-407A, 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 with Copelametic and Discus compressors), dual pressure control with hoses, liquid line filter-dryer, moisture indicating sight glass, flooded head pressure control valve 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 fusible plug or pressure relief vent and, at its outlet and/or inlet an 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, 3/4 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 headpressure 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**

The exterior mounted, weather proof, electrical control panel will be manufactured of 14 gauge galvanized steel which has been assembled, welded, de-burred and cleaned. The control panel shall include hinged access doors with a built-in fused disconnect switch inter-locked to shutoff all system electrical power when the doors are opened, 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 permanently affixed to the inside of the refrigeration 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.

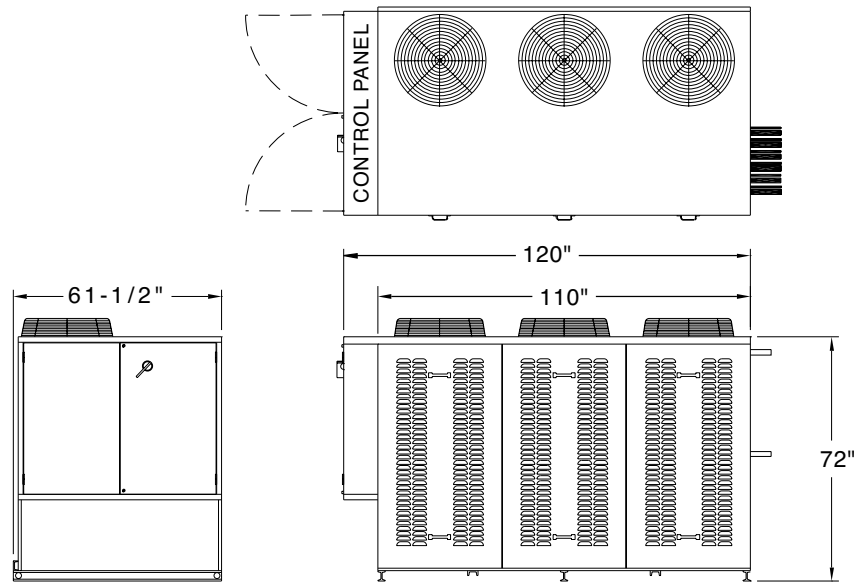
After circuiting the condenser shall be tested for leaks at a minimum pressure of 450 pounds per square inch/gauge (psig). After final assembly the entire system shall be tested for leaks at 250 psig and evacuated pressure test at 500 microns at the factory. The refrigeration system shall be shipped with a 55 psig charge of dry nitrogen.

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### DIMENSIONAL DATA



### PHYSICAL DATA

Approx. Total HP*	Maximum Number of Comp. (Spaces)**	Number of Fans	Typical Overall Dimensions (In.)			Approx. Weight (lbs.)
			Length	Width	Height	
22.0	10.0	3	120	61 1/2	54	3725

\* Total compressor HP will be determined by comp(s). used.

\*\* 1/2 - 3 HP = 1 comp. space, 4 HP and larger = 2 comp. 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 electric data.

Specification subject to change without prior notice.