

- a. Coils: Aluminum fins mechanically bonded to seamless copper tubing. Provide sub-cooling circuits. Air test under water to 425 psig, and vacuum dehydrate. Seal with holding charge of refrigerant.
 - b. Coil Guard: Louvered or PVC coated steel wire grille.
- 4. Fans and Motors
 - a. Vertical discharge direct driven, statically and dynamically balanced propeller type condenser fans with aluminum blades and fan guard on discharge.
 - b. Weatherproof motors suitable for outdoor use, single phase permanent split capacitor or 3 phase, with permanent lubricated ball bearings and built in current and thermal overload protection.
- 5. Compressors
 - a. Compressor: Hermetic scroll type or hermetic reciprocating, quantity as scheduled. Provide two stage compressors where scheduled on plans.
 - b. Mounting: Statically and dynamically balance rotating parts and mount on rubber-in-shear vibration isolators. Units of 10 tons and greater shall have internal spring isolation.
 - c. Lubrication System: Units of 7-1/2 tons and greater shall have Reversible, positive displacement oil pump with oil charging valve, oil level sight glass, and magnetic plug or strainer.
 - d. Motor: Constant speed 3600 rpm suction gas cooled with electronic sensor and winding over temperature protection, designed for across-the-line starting. Furnish with starter where applicable.
 - e. Sump Oil Heater: Evaporates refrigerant returning to sump during shut down. Energize heater continuously when compressor is not operating.
- 6. Refrigerant Circuits
 - a. Where 2 stages are scheduled, provide each unit with a minimum of two independent refrigerant circuits, factory supplied and piped.
 - b. For each refrigerant circuit, provide:
 - 1) Filter dryer.
 - 2) Insulated suction line.
 - 3) Suction and liquid line service valves and gage ports.
- 7. Controls
 - a. On unit, mount weatherproof steel control panel, NEMA 250, containing power and control wiring, factory wired with single point power connection.
 - b. For each compressor, provide contractor, integral overload protection, solid state time delay, and control power transformer or terminal for controls power. For each condenser fan, provide contactor.
 - c. Provide safety controls as follows: