Cabinet and structure

The cabinet is made of galvanized steel sheet and painted to provide a high resistance to corrosion. Colour Ivory White (Munsell code 5Y7.5/1) (±RAL7044).The base frame has eye-hook for lifting the unit with ropes for an easy installation. The weight is uniformly distributed along the profiles of the base and this facilitates the arrangement of the unit.

Screw compressors with integrated oil separator

From size ERAD120E-SS to size ERAD250E-SS and from size ERAD120E-SL to size ERAD240E-SL

The compressor is semi-hermetic, single-screw type with one gate-rotor (made of carbon impregnated engineered composite material). The compressor has one slide managed by the unit microprocessor for infinitely modulating the capacity between 100% to 25%. An integrated high efficiency oil separator maximises the oil separation. Standard Start is Wye-delta (Y-Δ) type.

From size ERAD310E-SS to size ERAD490E-SS and from size ERAD300E-SL to size ERAD460E-SL

The compressor is semi-hermetic, single-screw type with gate-rotor (with the latest high-strength fibre reinforced star material). The compressor has an asymmetric slide regulation managed by the unit controller for infinitely modulating capacity between 100% to 25%. An integrated high efficiency oil separator maximizes the oil separation. Standard Start is Wye-delta (Y-Δ) type.

Ecological R-134a refrigerant

The compressors have been designed to operate with R-134a, ecological refrigerant with very low ODP (Ozone Depletion Potential) and GWP (Global Warming Potential) that means low TEWI (Total Equivalent Warming Impact).

Condenser coils

The condenser is manufactured with internally enhanced seamless copper tubes arranged in a staggered row pattern and mechanically expanded into lanced and rippled aluminium condenser fins with full fin collars. An integral sub-cooler circuit provides sub-cooling to effectively eliminate liquid flashing and increase the cooling capacity without increasing the power input.

Condenser fans

The condenser fans are propeller type with high efficiency design blades to maximize performances. The material of the blades is glass reinforced resin and each fan is protected by a guard. Fan motors are protected by circuit breakers installed inside the electrical panel as a standard. The motors are IP54.

Refrigerant circuit

Each unit has 1 refrigerant circuit and includes:

- Compressor with integrated oil separator
- Air Cooled Condenser
- Discharge line shut off valve
- Liquid line shut off valve
- Suction line shut off valve
- Sight glass with moisture indicator
- Filter drier
- Charging valves
- High pressure switch
- High and low pressure transducers

Electrical control panel

Power and control are located in the main panel that is manufactured to ensure protection against all weather conditions. The electrical panel is IP54 and (when opening the doors) internally protected with plexiglas panel against possible accidental contact with electrical components (IP20). The main panel is fitted with a main switch interlocked door.