



**For Cluster Cold rooms and Power saving Retrofit in Hotels / Supermarkets**

## **Models :**

20 KW TO 250 KW available with Hermetic and Semi hermetic Reciprocating Compressors.

## **Range :**

From 0 to -30 DegC. Other temperatures on request.

## **Features and Benefits :**

- Choice of Scroll / Semi Hermetic and Open Compressors
- Large capacity vertical receiver
- High pressure and Low pressure safety cutout controls
- Suction gas and liquid gas filter drier
- Minimum system joints to reduce possibility of leakage
- Compressor oil level monitoring and alarm
- Indicator sight glass
- Low vibration transfer through piping systems
- Safety pressure relief valve
- Safety pressure controls standard supply

## **Benefits :**

- Low investment cost per KW
- Factory assembly reduces installation times
- Small floor area required
- Highly intelligent micro processor based control system
- Fully automatic suction pressure control
- Compressor running time management system
- Factory assembled electrical systems, fully equipped with motor overloads
- Condenser fan control module
- Remote system monitoring
- Data log and event log monitoring
- Air or water cooled condenser options available
- Compressor unloading

## Hardware

- Oil separator with high pressure reservoir
- Discharge pressure regulator
- Split condenser piping using Split condenser valve or Normally open solenoid valves
- Suction circuit with Suction stop solenoid or Pilot operated suction EPR valve or Non-pilot operated suction EPR valve or Electronic EPR with isolation valve
- Liquid circuit with Solenoid valve
- Hot gas bypass check valve
- Hot gas solenoid for each hot gas circuit
- Hot gas return header and check valves
- Reciprocating compressor oil float regulator
- Scroll compressor oil regulator
- Compressor safety controls automatic reset high pressure and Flow Controls adjustable, automatic reset low pressure control with flexible hose and, an electronic oil safety switch
- Motor phase monitor (wired to allow the electronic controller to start-up and gain control before the rest of the control circuit is powered)
- Head cooling fans on low temperature reciprocating compressors
- Crankcase heaters on all units
- A brass suction filter shell.
- Electronic defrost control
- Horizontal liquid receiver with Isolation ball valves and receiver pressure regulator and Liquid level gage and Receiver pressure relief valve
- Liquid supply line with replaceable multi-core filter/drier and sight-glass/moisture indicator and Isolation ball valve.

## Control Engineering

### General functions

1. Pressure transducers, display data in BAR/°C (depending on the type of refrigerant gas)
2. Management of compressors with the same and different capacities
3. Setting of the number of compressors – fans on the unit
4. Rotation of the compressors.
5. Fan speed control
6. Compressor and fan dead band management
7. Possibility to enter the compressor set point in BAR and display the value in °C by pressing the "UP" and "DOWN" buttons together when displaying the parameter values.
8. Possibility to enter the fan set point in BAR or degrees centigrade, depending on the control probe used (pressure or NTC).
9. Multifunction input: general HP alarm, ON/OFF, change SET POINT,

10. Set point variation from digital input
11. Possibility to set the compressor-fan thermal overload/generic alarm as automatic/manual
12. Enable compressors from the "Maintenance" screen
13. Floating condenser set point
14. Optional temperature probes, with high temperature alarm threshold :
  1. Outside air
  2. Ambient air
  3. Compressor discharge temperature
  4. Suction temperatur



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