

CM Series

Multi compressor condensing unit with scroll/digital scroll compressors

General features:

- › Capacity for MT cooling: 10,5 kW to 102 kW
- › Capacity for LT cooling: 7,5 kW to 48,5 kW
- › Ambient temperature range : - 25ww - +43°C
- › R-134a, R-449A, R-448A, R-452A, R-407F, R-407A
- › !! Copeland scroll and digital scroll compressors
Other types, brands and capacities are possible on request
- › Conditions:
 - MT: Ambient temperature: 35°C Evp. Temperature: -10°C
 - LT: Ambient temperature: 35°C Evp. Temperature: -35°C

Standard configuration:

Basic Frame Version:

Basic frame made from pre-painted steel sheet, with vertical condenser placed on 1 or 2 sides of the unit and fans (2, 3, 4, or 5) placed on frame top covering sheet.
The compressors are installed in a soundproof compartment separate from the condenser side, but allowing ventilation.
The compartment is simple soundproofing insulated (SMP).

Basic Refrigerating System:

The compressors (3 or 4) are connected in parallel, with one suction and discharge header. Each compressor is fitted with shut-off valves on suction line and discharge line.
The compressors are fixed to the frame through rubber anti-vibration supports.
The oil equalization system is composed of an oil separator and an equalization header, which are mounted on the compressor oil sight glass connection.
According to the number of compressors fitted, there are one or two oil level indicator/s, fitted onto the equalization header.
The refrigerating system is equipped with liquid receivers, if there is more than one receiver, the installation is made in parallel with a safety valve, a dehydration cartridge filter, interchangeable, liquid level alarm, liquid sight glass and shut-off valves. On suction line there is a mechanical cartridge filter, interchangeable.

Nomenclature:

CC-E: Scroll compressor
CC-ED: Digital scroll compressor



CM Scroll

The refrigeration system is fitted with:

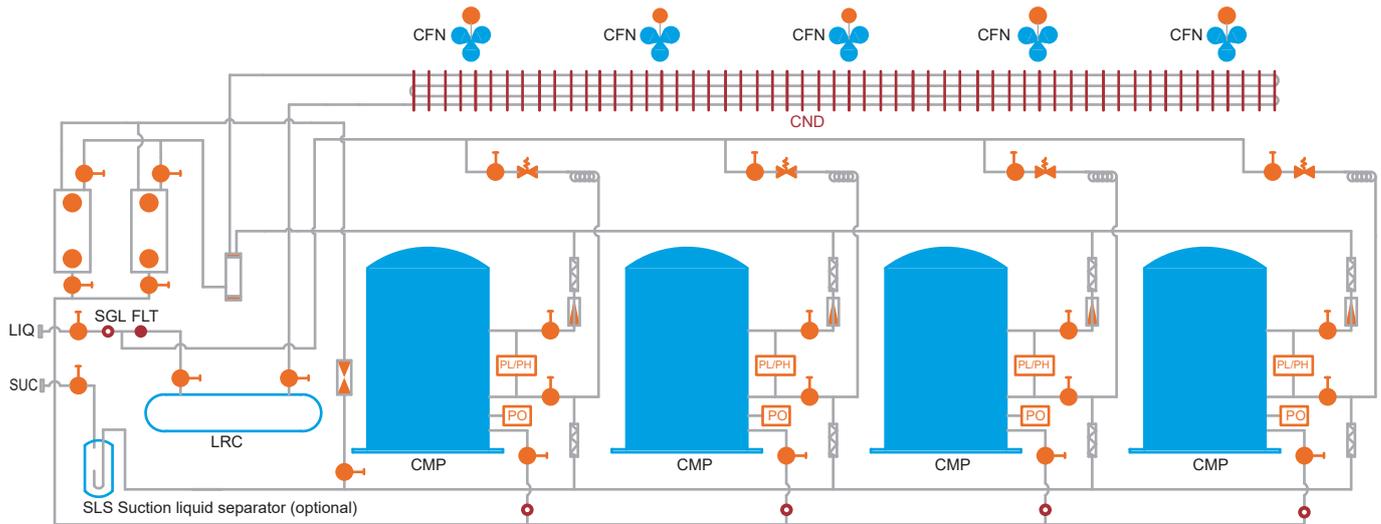
- › General high pressure switch, adjustable and autoresetting
- › General low pressure switch, adjustable and autore-setting
- › Emergency low pressure switch, adjustable and autoresetting
- › Low pressure switches for each compressor emergency, adjustable and autoresetting
- › Low pressure probe, placed on suction header for capacity control
- › High pressure gauge
- › Low pressure gauge

Standard electrical panel:

Standard power distribution
Disconnecting switch
Compressors protection, with overload cut-out motor protector; fuses for fans protection, thermo- contacts for each single fan.
Auxiliary circuit 230 volt through transformer 400V/230V
Electronic card XC440C
Four alarm signals: emergency (button + lamp, fans block, high pressure switch block, low pressure switch block).
Electronic speed regulator for condenser fan with pressure probe for three phase fans and with temperature probe for mono phase fans + bypass
The electrical panel is placed horizontally on the top front side of the unit, inside the panel sheets for frame 1, 2 and 3; greed, ventilation fan and double door for frames 4, 5, 6 and 7.

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Refrigeration flow diagram and main components

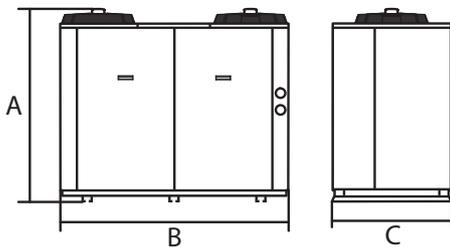


Legend:

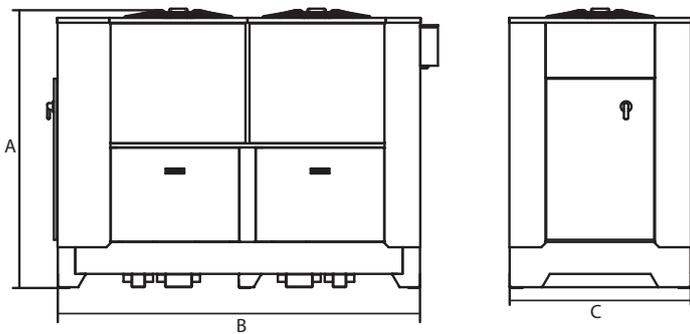
CMP: compressor	SVA: safety valve	VAL: closing valve
SCO: service valve	LRC: liquid receiver	OSGL: oil sight glass
SGL: sight glass	CND: condenser	LQD: liquid connection
PL: LP switch	VNC: condenser fan motor	SCT: suction connection
PH: HP switch	FLT: filter dryer	

Drawings and dimensions

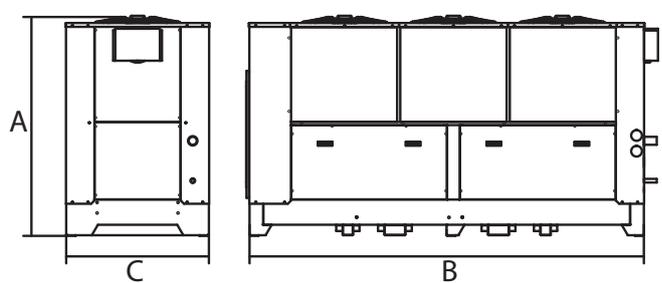
CM1_2_3



CM4



CM5_6_7



(mm)	Frame 1	Frame 2	Frame 3	Frame 4	Frame 5	Frame 6	Frame 7
A	1.800	1.800	1.800	2.098	2.098	2.098	2.098
B	2.431	2.431	2.431	2.913	3.943	4.973	6.003
C	1.111	1.111	1.111	1.357	1.357	1.357	1.357