

CONDENSUM Inverter Scroll Refrigerating Plant, with centrifugal condenser and electric power panel

Main Features

- ▶ All the components of the CONDENSUM control unit are integrated in a very compact device that is very easy to install.
- ▶ The use of Hitachi scroll compressors, with a very wide range of operation, ensures great strength and reliability of this equipment even in extreme application conditions.
- ▶ The high COP scroll compressors, combined with a frequency converter and the speed regulator or frequency converter of the centrifugal condenser, allow to achieve an energy efficiency superior to that of any other central compressor with centrifugal condenser on the market.



Technical Features

CONDENSUM MID TEMPERATURE

Model	Number of scroll compressors and power	Refrigeration cap. -10°C/+45°C (kW)	Number of fans	rpm	Power (cv)	PVP 2017
CONDENSUM 5M	2 x 1 1/2	5	1	900	1/3	13.129 €
CONDENSUM 6M	2 x 2	6	1	900	1/3	13.984 €
CONDENSUM 7M	2 x 2 1/2	7	1	900	1 1/2	14.486 €
CONDENSUM 8M	2 x 3	8	1	900	1 1/2	15.072 €
CONDENSUM 12MX	2 x 3 1/2	12	2	900	1 1/2	16.264 €
CONDENSUM 15MX	2 x 4	15	2	900	1 1/2	17.053 €
CONDENSUM 18MX	2 x 5	18	2	900	1 1/2	17.070 €
CONDENSUM 22MX	2 x 6	22	3	900	1 1/2	18.688 €

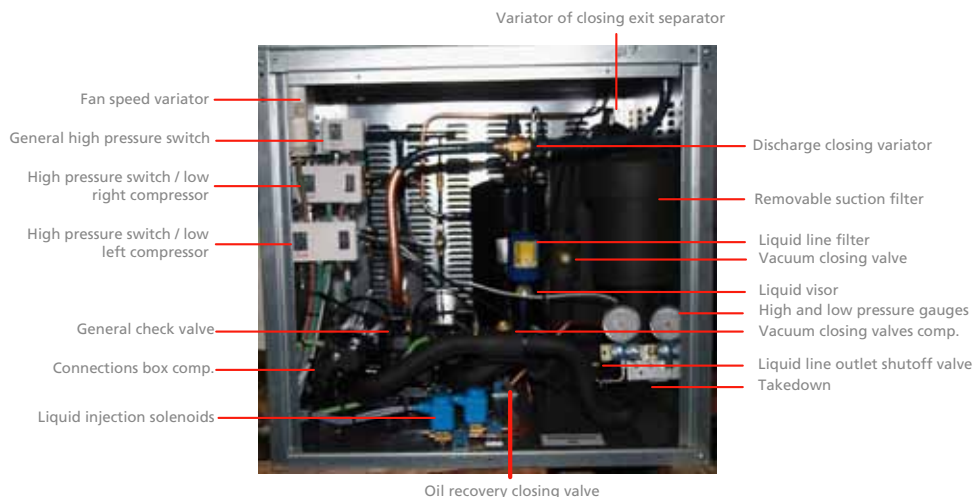
CONDENSUM LOW TEMPERATURE

Model	Number of scroll compressors and power	Refrigeration cap. -30°C/+45°C (kW)	Number of fans	rpm	Power (cv)	PVP 2017
CONDENSUM 3L	2 x 2 1/2	3	1	900	1/3	14.274 €
CONDENSUM 4L	2 x 3	4	1	900	1/3	14.864 €
CONDENSUM 5L	2 x 3 1/2	5	1	900	1 1/2	17.030 €
CONDENSUM 7L	2 x 4	7	1	900	1 1/2	18.688 €
CONDENSUM 9L	2 x 5	9	2	900	1 1/2	20.117 €

CONDENSUM Inverter Scroll Refrigerating Plant, with centrifugal condenser and electric power panel

Standard Equipment

- ▶ 2 horizontal scroll hermetic compression compressors for sound level reduction
- ▶ Frequency inverter for the main compressor
- ▶ Discharge collector
- ▶ Reinforced check valves in the discharge lines of each compressor (Mods. M, L and MX) and in the general discharge line (Mods. M and L)
- ▶ Collector and suction lines in each compressor isolated
- ▶ Removable thermally isolated suction filter
- ▶ Liquid separator in the suction with shut-off valve at the refrigerant outlet to the collector
- ▶ Closing valves in the suction and discharge lines of each compressor (Mods M, L and MX), in the discharge lines (Mods M, L and MX) and general suction lines (Mods M and L)
- ▶ High and low outlines in general lines
- ▶ Ultra-efficient oil separator with shut-off valve in the oil return line
- ▶ Centrifugal condenser dimensioned for high ambient temperature
- ▶ Speed regulator or frequency inverter for the capacitor
- ▶ Complete liquid line with liquid container with safety valve, filter drier, visor and ball valves (ball valves not included in MX mod.)
- ▶ High / low pressure switch on each compressor and general high pressure switch
- ▶ Low pressure transducer
- ▶ Glycerin manometers high and low (except in MX mods)
- ▶ Body kit in galvanized sheet
- ▶ Electrical panel for protection and maneuvering of compressors and condenser completely wired and connected
- ▶ Supplied with nitrogen pressure and pre-charged oil, tested for leaks, voltage and electrical connections, ready to operate with refrigerant R404A or R507
- ▶ MX Models: Sanyo Compressors
- ▶ M and L models: Hitachi Compressors



All this is integrated in a very compact equipment that is very easy to install. The use of Hitachi scroll compressors, with a wide range of operation, ensures a great resistance and reliability of this equipment even in extreme application conditions. The high COP scroll compressors, combined with a frequency inverter, and the speed regulator or frequency variator of the centrifugal condenser allow to reach an energy efficiency superior to that of any other centrifugal condenser compressor plant in the market.

OMNIUM Inverter Scroll Refrigerating Plant

Main Features

MAIN COMPONENTS:

- ▶ 2 INVERTER SCROLL hermetic compressors for sound level reduction
- ▶ Compressor high / low pressure switch from OMNIUM 12X
- ▶ Low pressure switch up to OMNIUM 8X
- ▶ High pressure switch
- ▶ Thermally insulated suction liquid separator
- ▶ Mechanical vacuum filter with cartridge, thermally insulated, from model OMNIUM 15MX and OMNIUM 7LX model
- ▶ Thermally insulated suction manifold
- ▶ Reinforced check valve and antivibrator (anaconda) by compressor
- ▶ High efficiency oil separator Turboil type
- ▶ Injection of liquid for each compressor except OMNIUM 15MX, OMNIUM 18MX and OMNIUM 22 MX

- ▶ Crankcase heater for OMNIUM 15MX, OMNIUM 18 MX and OMNIUM 22 MX
- ▶ Steel bench painted, in one piece
- ▶ MX Models: Sanyo Compressors
- ▶ MLX and LX models: Hitachi compressors



BENEFITS:

- ▶ **VERSATILE:** OMNIUM power stations are suitable for any application: refrigeration, frozen, cold rooms, ...; depending on model
- ▶ **FLEXIBLE:** From the most economical option to the most complete, going through all the options and prices
- ▶ **COMPACT:** The equipments upto 6 HP and low to 8 HP occupy less than 1m². Up to 12 CV occupy less than 1.5 m²t
- ▶ **SILENT:** The most powerful OMNIUM power unit generates a sound level of only 54.3 dBA at 1 m (or 34.3 dBA at 10 m)
- ▶ **RELIABLE:** Hitachi INVERTER SCROLL compressors work with evaporation temperature from -45°C to + 10°C. The maintenance and resolution of any problem is simple and fast

BASIC OMNIUM UNIT

Model	Number of scroll compressors and power	Refr. capacity with Temp. Cond -10°C/+45°C (kW)					
		5°C	0°C	-5°C	-10°C	-25°C	-30°C
OMNIUM 5MLX	2 x 1 1/2cv	7.360	6.371	5.464	4.638	2.618	2.100
OMNIUM 6MLX	2 x 2cv	9.814	8.462	7.224	6.156	3.420	2.816
OMNIUM 7MLX	2 x 1 1/2cv	11.832	10.094	8.516	7.104	3.842	3.082
OMNIUM 8MLX	2 x 3cv	12.974	11.270	9.696	8.256	4.726	3.814
OMNIUM 12MLX	2 x 3 1/2cv			14.140	11.840	6.600	5.320
OMNIUM 15MX	2 x 4cv			18.280 €	15.300 €		
OMNIUM 18MX	2 x 5cv	34.060	27.256	22.730	18.200		
OMNIUM 22MX	2 x 6cv	40.860	32.858	27.490	22.092		
OMNIUM 7LX	2 x 4cv					8.450	6.880
OMNIUM 9LX	2 x 5cv					10.700	8.620

MLX Models: For positive and negative temperature; MX: Only positive temperature; LX: Only negative temperature

OMNIUM

Inverter Scroll Refrigerating Plant

Price and Options

BASIC OMNIUM UNIT

Model	BASIC UNIT	OPTION 1	OPTION 2	OPTION 3	OPTION 4	OPTION 5	OPTION 6	OPTION 7
OMNIUM 5ML	7.189 €	3.719 €	708 €	456 €	308 €	1.640 €	1.258 €	283 €
OMNIUM 6ML	7.486 €	4.020 €	708 €	473 €	308 €	1.761 €	1.560 €	283 €
OMNIUM 7MLX	7M	7.514 €	4.020 €	751 €	493 €	365 €	1.791 €	361 €
	3L	7.514 €	4.020 €	751 €	456 €	308 €	1.593 €	283 €
OMNIUM 8MLX	8M	8.156 €	4.020 €	769 €	493 €	428 €	1.791 €	361 €
	4L	8.156 €	4.020 €	769 €	473 €	449 €	1.593 €	283 €
OMNIUM 12MX	7.599 €	4.920 €	769 €	493 €	220 €	3.035 €	2.101 €	361 €
OMNIUM 15MX	8.156 €	4.920 €	769 €	493 €	220 €	2.976 €	2.060 €	361 €
OMNIUM 18MX	8.334 €	4.920 €	887 €	892 €	220 €	3.430 €	2.189 €	361 €
OMNIUM 22MX	8.865 €	4.920 €	887 €	892 €	220 €	3.836 €	2.499 €	361 €
OMNIUM 7LX	7.325 €	4.920 €	887 €	510 €	220 €	5.101 €	2.693 €	361 €
OMNIUM 9LX	12.374 €	4.920 €	838 €	510 €	220 €	1.824 €	1.588 €	361 €

MLX Models: For positive and negative temperature; MX: Only positive temperature; LX: Only negative temperature

OPTIONS:

- ▶ Option 1: Electrical panel
- ▶ Option 2: Keys of passage
- ▶ Option 3: Container and liquid line
- ▶ Option 4: High / low pressure switch
- ▶ Option 5: Axial condenser or Centrifuge and body
- ▶ Option 6: Axial condenser without body
- ▶ Option 7: Capacitor speed controller

Proportions

OMNIUM	5ML - 3L-4L	6MLX - 7MLX - 8MLX	12MLX	15MX - 18MX - 22MX	7LX - 9LX
BASIC UNIT	1100 x 820 x 860			750 x 820 x 860	1110 x 820 x 860
WITH ELECTRIC PANEL	1350 x 820 x 860		1450 x 820 x 860	1100 x 820 x 860	1450 x 820 x 860
BODY BUILT BASIC UNIT	1100 x 820 x 860				
BODY BUILT BASIC UNIT WITH PANEL	1300 x 820 x 860				

VRF SCROLL Refrigerating Plants (scroll with variable refrigerant flow rate)

Units with 2 hermetic scroll compressors with reduced sound level and with control of the variable refrigerant flow that is sent to the installation.

Homologated for R-448A, R-449A,
R-407F, R-407A, R-442A, R-134a,
R-450A, R-404A y R-507



**DESIGNED ESPECIALLY FOR
FACILITIES WITH SOME VERY SMALL
COLD SERVICES, NORMALLY FOR
HOSTELERY**



ADVANTAGES:

- ▶ It allows the use of a refrigeration plant to feed very small services in large facilities (hotels, restaurants, bars ...) or combinations of large services (cameras ...) and very small services (under counters ...).
- ▶ Low electrical consumption.
- ▶ Low maintenance cost.
- ▶ Lower probability of breakdowns.
- ▶ Longer duration of the plant.

VRF SCROLL Refrigerating Plants (scroll with variable refrigerant flow rate)

Features

- ▶ Capacity regulation valve that allows to give less than 4% of the total nominal capacity.
It allows to feed very small services (under counters ...) from a central for large installations (with many services or with other very large services).
- ▶ Coolant flow control that stops the compressor only when there is no service running reducing the number of compressor starts
The electrical consumption of the installation is reduced and the durability of the compressors is increased.
- ▶ Two equal compressors that work alternatively.
No compressor suffers more wear and tear than the other and, in case of failure, both are basic and economic compressors. Usually one of the 2 compressors works much longer than the other and its duration is more limited. Generally, in the inverter or digital type, only one of the compressors is inverter or digital. This, much more expensive, is the one that works the most time and the one that usually breaks down.
- ▶ Liquid injection regulated by a discharge clixon to cool the compressor that feeds only a very small service and through which circulates a small flow of refrigerant.
Increase the reliability and durability of compressors, reducing breakdowns and maintenance costs.
- ▶ Speed regulation of condenser fans according to high pressure.
Reduces the consumption of condenser fans.

Range

Compact Model	PVP 2017	Modular Model	Number of scroll compressors and power (cv)	Refrigeration cap. -10°C/+45°C (kW)
CONDENSUM 5M VRF SCROLL	12.473 €	OMNIUM 5M VRF SCROLL	2 x 1 1/2	4,6
CONDENSUM 6M VRF SCROLL	13.285 €	OMNIUM 6M VRF SCROLL	2 x 2	6,2
CONDENSUM 7M VRF SCROLL	13.762 €	OMNIUM 7M VRF SCROLL	2 x 2 1/2	7,1
CONDENSUM 8M VRF SCROLL	14.318 €	OMNIUM 8M VRF SCROLL	2 x 3	8,3
CONDENSUM 12M VRF SCROLL	15.451 €	OMNIUM 12M VRF SCROLL	2 x 3 1/2	11,8
CONDENSUM 15M VRF SCROLL	16.200 €	OMNIUM 15M VRF SCROLL	2 x 4	15,3
CONDENSUM 18M VRF SCROLL	16.217 €	OMNIUM 18M VRF SCROLL	2 x 5	18,2
CONDENSUM 22M VRF SCROLL	17.754 €	OMNIUM 22M VRF SCROLL	2 x 6	22,1

Para refrigerantes R-407F; R-407A; R-442A; R-448A; R-449A; R-404A; R-507; (para R-134a o R-450A multiplicar por 0,57)

VRF SCROLL Refrigerating Plants (scroll with variable refrigerant flow rate)

CONDENSUM VRF SCROLL

The CONDENSUM VRF SCROLL units add to these the advantage that most of the elements of the installation (compressor plant, condenser, liquid line and electrical panel) are included in a single unit assembled and tested in the factory.

- ▶ Installation time is reduced.
- ▶ The required refrigerant charge and the impact of leaks are reduced.
- ▶ The space occupied by the installation is reduced.
- ▶ The reliability of the installation is improved, reducing breakdowns and maintenance costs.

Main Components

- ▶ 2 hermetic scroll compressors with reduced sound level.
- ▶ Capacity control by means of a refrigerant flow control valve.
- ▶ Discharge collector.
- ▶ Reinforced check valves in the discharge lines of each compressor and in the general discharge line.
- ▶ Collector and thermally insulated suction lines.
- ▶ Removable thermally isolated suction filter.
- ▶ Liquid separator in the suction with shut-off valve at the refrigerant outlet towards the thermally insulated collector.
- ▶ Shut-off valves in the suction and discharge lines of each compressor and in the general discharge and suction lines.
- ▶ High and low shots in the general lines.
- ▶ Ultra efficient oil separator with shut-off valve in the oil return line.
- ▶ Centrifugal condenser dimensioned for high ambient temperature.
- ▶ Speed regulator for the condenser.
- ▶ Complete liquid line with liquid container with safety valve, filter drier, visor and ball valves.
- ▶ High / low pressure switch on each compressor and general high pressure switch.
- ▶ Low pressure transducer.
- ▶ Glycerin manometers high and low.
- ▶ Body in galvanized sheet.
- ▶ Electrical panel for protection and maneuver of the compressors and the capacitor completely wired and connected.
- ▶ Supplied with nitrogen pressure, pre-charged oil, leak tested, voltage and electrical connections, ready to work with refrigerant R-407F, R-407A, R-442A, R-448A, R-449A, R-404A, R-507, R-134a or R-450A.

VRF SCROLL Refrigerating Plants (scroll with variable refrigerant flow rate)

OMNIUM VRF SCROLL

Main Components

- ▶ 2 SCROLL hermetic compressors with reduced sound level.
- ▶ High / low compressor pressure switch from OMNIUM 12M.
- ▶ Low pressure switch up to OMNIUM 8M.
- ▶ High pressure switch.
- ▶ Thermally insulated suction liquid separator.
- ▶ Mechanical vacuum filter with cartridge, thermally insulated, from OMNIUM 15M.
- ▶ Thermally insulated suction manifold.
- ▶ Reinforced check valve and antivibrator (anaconda) by compressor.
- ▶ High efficiency oil separator type Turboil.
- ▶ Injection of liquid for each compressor in OMNIUM 5M, OMNIUM 6M, OMNIUM 7M and OMNIUM 8M
- ▶ Carter resistance for OMNIUM 12M, OMNIUM 15M, OMNIUM 18M and OMNIUM 22M
- ▶ Steel bench with anti-corrosion treatment and painted in one piece

Options

- Electrical protection and maneuver board
- Step keys before and after each component
- Container and liquid line with filter drier and visor
- High / low compressor pressure switches
- Pressure gauges
- Axial or centrifugal condenser and body
- Axial condenser without body
- Condenser speed regulator

Proportions

OMNIUM	5M	6M - 7M - 8M	12M	15M - 18M - 22M
BASIC UNIT	1100 x 820 x 860			750 x 820 x 860
WITH ELECTRIC PANEL	1350 x 820 x 860		1450 x 820 x 860	1100 x 820 x 860
BODY BUILT BASIC UNIT	1100 x 820 x 860			
BODY BUILT BASIC UNIT WITH PANEL	1300 x 820 x 860			