

**Condenserless units
with scroll compressors**



GENERAL DESCRIPTION

Unit Frame.

Frame made from anodized aluminium section bars, with aluminium corner joints and galvanized steel panel casing with baked-on epoxy-polyester powder paint. RAL 7032 colour.

Hermetic compressors.

Scroll type with thermal overload cutout, mounted on rubber vibration-dampers.

Refrigerant circuit.

With charging connection, liquid sight glass (except 21-31-36), drier filter, thermostatic expansion valve, high and low pressure switches, safety device.

Evaporator.

Braze-welded plate type with anti-condensate insulation, anti-freeze protection and mechanical flow switch.

Electrical panel.

With main switch, power and control circuit protection, compressor contactor. Microprocessor-controlled unit with function display mode.

Testing.

Units are factory tested and supplied with initial oil charge.

AVAILABLE VERSIONS

MU/LC

Condenserless unit (designed for operation with air-cooled remote condenser).

MU/LC/ST

Hydraulic circuit featuring insulated storage tank, water pump and safety valve.

MU/LC/PF

Hydraulic circuit with water pump.

ACCESSORIES

- solenoid valve for liquid line;
- liquid receiver;
- condenser for tower water;
- rubber vibration dampers;
- special voltages;
- expansion vessel (for ST version);
- automatic filling unit with gauge (for ST version);
- remote control terminal;
- card for RS 485 serial line.

Can be used in combination with CRAX –CRCF air-cooled condensers.

MU/LC - R407C TECHNICAL DATA

| Unit size | | 21 | 31 | 36 | 41 | 61 |
|-------------------------------------|-----------------|-------|-------|------------|-------|-------|
| Cooling(*) | | | | | | |
| Nominal capacity | kW | 4,5 | 6,9 | 8,1 | 9,9 | 12,2 |
| Compressor | | | | | | |
| Quantity | n° | 1 | 1 | 1 | 1 | 1 |
| Type | / | | | scroll | | |
| Cooling power input | kW | 1,7 | 2,5 | 2,9 | 3,5 | 4,2 |
| Heating power input | kW | 1,7 | 2,6 | 2,9 | 3,5 | 4,2 |
| Evaporatore | | | | | | |
| | | | | plate type | | |
| Water volume | dm ³ | 0,50 | 0,85 | 0,85 | 1,04 | 1,41 |
| Oil charge | kg | 1,00 | 1,10 | 1,10 | 1,85 | 1,55 |
| version ST | | | | | | |
| Pump nominal power | kW | 0,22 | 0,22 | 0,22 | 0,46 | 0,46 |
| Water flow rate | l/s | 0,258 | 0,392 | 0,453 | 0,558 | 0,689 |
| Pump available pressure | kPa | 60 | 60 | 60 | 120 | 100 |
| Storage tank capacity | l | 100 | 100 | 100 | 100 | 100 |
| Expansion vessel | l | 2 | 2 | 2 | 2 | 2 |
| Shipping weight (#) | kg | 68 | 74 | 75 | 81 | 85 |
| Shipping weight vers. ST (#) | kg | 137 | 140 | 143 | 153 | 156 |

| Unit size | | 81 | 91 | 101 | 141 | 161 |
|-------------------------------------|-----------------|-------|-------|------------|-------|-------|
| Cooling(*) | | | | | | |
| Nominal capacity | kW | 14,6 | 20,1 | 26,3 | 32,9 | 37,6 |
| Compressor | | | | | | |
| Quantity | n° | 1 | 1 | 1 | 1 | 1 |
| Type | / | | | scroll | | |
| Cooling power input | kW | 4,9 | 6,5 | 8,9 | 11,0 | 13,0 |
| Heating power input | kW | 4,9 | 6,5 | 8,9 | 10,8 | 12,8 |
| Evaporator | | | | | | |
| | | | | plate type | | |
| Water volume | dm ³ | 1,41 | 1,88 | 2,64 | 2,91 | 3,57 |
| Oil charge | kg | 1,65 | 2,5 | 2,5 | 4,0 | 4,0 |
| version ST | | | | | | |
| Pump nominal power | kW | 0,46 | 0,62 | 0,62 | 0,82 | 0,82 |
| Water flow rate | l/s | 0,828 | 1,028 | 1,425 | 1,778 | 2,136 |
| Pump available pressure | kPa | 80 | 100 | 80 | 110 | 80 |
| Storage tank capacity | l | 100 | 100 | 100 | 100 | 100 |
| Expansion vessel | l | 2 | 2 | 2 | 2 | 2 |
| Shipping weight (#) | kg | 88 | 174 | 181 | 190 | 200 |
| Shipping weight vers. ST (#) | kg | 158 | 235 | 241 | 251 | 262 |

(*) Condensation temperature 50 °C; evaporator outlet water temperature 7 °C.

(#) For heat pump units increase weight by 10%.