



Air-cooled water or glycol condensing chillers, with silent operation and compact construction in galvanised steel bodywork and structure in polyester paint for outdoor installation.

Features

- ▶ 230V 50Hz or 400V 3N 50Hz power supply. Available in 60 Hz. Others voltages by request.
- ▶ Hermetic reciprocating or scroll compressor, acoustically insulated, with discharge silencer (in hermetic reciprocating compressor), mounted on dampers, with internal clixon and crankcase heater.
- ▶ Large-surface condensing coil made of copper tubes and aluminium fins, with tropicalised dimensioning for ambient temperatures up to 50 °C.
- ▶ Low-speed, nozzle-mounted motor fans, dynamically balanced propellers and external protection grilles.
- ▶ Proportional condensing pressure control by means of fan speed variation (optional on single-phase models).
- ▶ Cooling circuit equipped with high and low pressure switches, ceramic filter and sight glass.
- ▶ Stainless steel plate heat exchanger.
- ▶ Electric power and control panel, with differential and magneto-thermal protection for compressor, fan/s and hydraulic pump.
- ▶ Hydraulic circuit made of copper pipe with threaded connections, fill/drain valve, air vent, flow switch, thermometers and inlet/outlet pressure gauges. Threaded connections.
- ▶ Liquid injection in low temperature models with R-449A.

ELECTRICAL PANEL

LOW NOISE AND LOW SPEED
MOTOR FANS

COMPRESSOR
WITH ACOUSTIC INSULATION

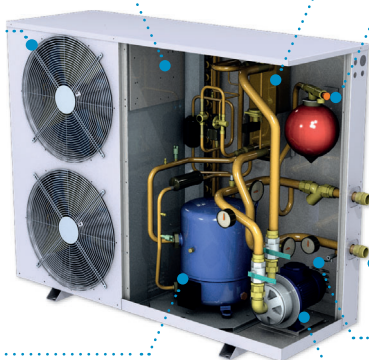
PLATE HEAT EXCHANGER

EXPANSION VESSEL (OPTIONAL)

HYDRAULIC CONNECTION

THERMOMETERS

HYDRAULIC PUMP (OPTIONAL)



- ❄ Operation with glycol water.
- ❄ Minimum coolant charge.
- ❄ Integrated hydraulic circuit.

Highly reliable compressors

Maneurop hermetic reciprocating compressors are characterised by their great robustness and reliability of operation, and as they are cooled exclusively by the refrigerant gas, they provide effective soundproofing.



Efficient, quiet and modulating condensing units

Motor fans with variable speed, maintain condensing pressure at low ambient temperatures with reduced noise level.



Brazed plate heat exchanger

The chiller unit incorporate a stainless steel plate heat exchanger with copper brazing.



Triple soundproofing

Sigilus chillers incorporate triple acoustic insulation:

- Compressor compartment soundproofed and separated from the air flow.
- Compressors with acoustic jacket, and hermetic reciprocating compressors with discharge silencer.
- Low speed low noise fans, on anti-vibration structure.

230V 50Hz / 400V 3N-50 Hz | Positive temperature | Hermetic compressor | R-134a

| Refrigerant | Compressor | Series / Model | Compressor | | Cooling capacity (kW) ⁽¹⁾ | | Input power (kW) | Ecodesign | Max. input current (A) | Condenser | | Water flow (m³/h) | Pressure drop (kPa) ⁽³⁾ | Available pressure (kPa) With hydraulic group (optional) ⁽⁴⁾ | Hydraulic connection | Weight (kg) | SPL dB(A) ⁽⁵⁾ | |
|-------------|--------------|----------------|------------|--------------|--------------------------------------|--|------------------|-----------|------------------------|------------|-----------------|-------------------|------------------------------------|---|----------------------|-------------|--------------------------|---------------|
| | | | HP | Power supply | Model | Water outlet temperature (°C) % propylene glycol by volume | | | | Fan Ø (mm) | Air flow (m³/h) | | | | | | | |
| | | | | | | 0 °C PG 25 % | | | | | | | | | | | | -8 °C PG 35 % |
| R-134a | 1x Hermético | MWF-NY-5 053 | 1 1/2 | 230V | FH4518Y* | 3.0 | 2.0 | 1.2 | 3.1 | 12 | Ø 360 | 1 700 | 0.3 | 12 | 99 | 3/4" | 108 | 28 |
| | | MWF-NY-5 074 | 2 | 230V | FH4525Y* | 3.8 | 2.7 | 1.6 | 2.9 | 16 | Ø 360 | 1 700 | 0.5 | 19 | 91 | 3/4" | 110 | 35 |
| | | MWF-NY-6 108 | 5 | 400V 3N | MTZ64 | 5.7 | 3.9 | 2.2 | 2.9 | 17 | Ø 450 | 3 700 | 0.6 | 17 | 92 | 1" | 120 | 36 |
| | | MWF-NY-7 171 | 8 | 400V 3N | MTZ100 | 9.4 | 6.6 | 3.8 | 2.8 | 24 | Ø 450 | 4 000 | 1.0 | 14 | 92 | 1 1/4" | 177 | 41 |
| | | MWF-NY-7 272 | 13 | 400V 3N | MTZ160 | 14.4 | 10.7 | 6.2 | 2.7 | 39 | 2x Ø 450 | 6 500 | 1.6 | 40 | 150 | 1 1/4" | 194 | 39 |

230V 50Hz / 400V 3N-50 Hz | Negative temperature | Scroll compressor | R-449A

| Refrigerant | Compressor | Series / Model | Compressor | | | Cooling capacity (kW) ⁽¹⁾ | | Input power (kW) | Ecodesign | Max. input current (A) | Condenser | | Glycol flow (m³/h) | Pressure drop (kPa) ⁽³⁾ | Available pressure (kPa) With hydraulic group (optional) ⁽⁴⁾ | Hydraulic connection | Weight (kg) | SPL dB(A) ⁽⁵⁾ |
|-------------|------------|----------------|------------|--------------|-------------|--|-------------------|------------------|-----------|------------------------|------------|-----------------|--------------------|------------------------------------|--|----------------------|-------------|--------------------------|
| | | | HP | Power supply | Model | Water outlet temperature (°C) % ethylene glycol by volume | | | | | Fan Ø (mm) | Air flow (m³/h) | | | | | | |
| | | | | | | -20 °C EG 45 % | -25 °C EG 50 % | | | | | | | | | | | |
| R-449A | 1x Scroll | BWF-SG-6 013 | 4 | 400V 3N | ZF13KVE EVI | 5.6 | 4.7 | 3.8 | 1.9 | 11 | Ø 450 | 3 700 | 0.9 | 40 | 180 | 1" | 123 | 34 |
| | | BWF-SG-7 018 | 6 | 400V 3N | ZF18KVE EVI | 8.4 | 7.1 | 5.2 | 2.1 | 17 | 2x Ø 450 | 6 500 | 1.4 | 42 | 150 | 1 1/4" | 144 | 29 |
| | | BWF-SG-8 025 | 8 | 400V 3N | ZF25K5E EVI | 10.7 | 9.1 | 6.2 | 2.2 | 19 | 2x Ø 450 | 7 000 | 1.8 | 40 | 140 | 1 1/4" | 166 | 32 |

Options

- Built-in hydraulic unit with glycol circulating pump, expansion vessel, safety valve, mesh filter, air vent and filling valve (positive temperature models).
- Proportional condensing control (standard on three-phase models).
- Coil anti-corrosion coating.
- External coil protection grille.

Control panel

- 230V 50Hz or 400V 3N 50Hz power supply.
- Main switch.
- Multifunction electronic controller, with the following functions:
 - Compressor, fans and circulator pump management.
 - Proportional control of condensing pressure by varying fan speed (three-phase models).
 - Glycol inlet/outlet probes and evaporating temperature probe.
 - Safety control and operation alarms.
 - RS485 connection with MODBUS RTU communication protocol.

* Models available in 400V 3N 50Hz.

⁽¹⁾ Nominal performance refer to positive temperature operation at I/O temperature of -2/-8 °C of propylene glycol at 35 % concentration, and at negative temperature, I/O -19/-25 °C ethylene glycol at 50 % concentration by volume, for an outside temperature of 35 °C.

⁽²⁾ Seasonal performance factor (SEPR) according to Commission Regulation (EU) 2015/1095.

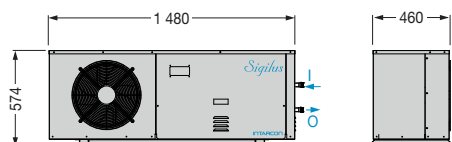
⁽³⁾ Pressure drop in the heat exchanger.

⁽⁴⁾ Pressure available in kPa for chiller with circulator pump. Consult pressure available for other hydraulic unit configurations.

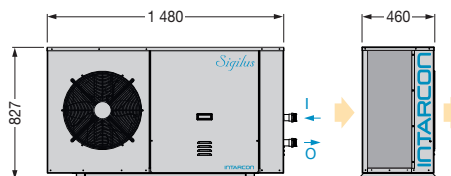
⁽⁵⁾ Sound pressure level of the condenser referred to dB(A) sound pressure level, measured in the open field at 10 m distance.

Dimensions

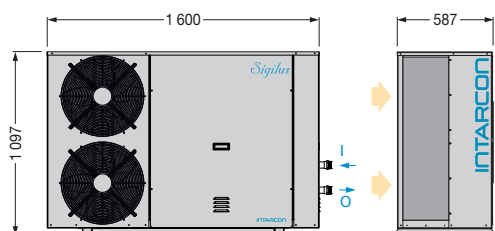
5 series



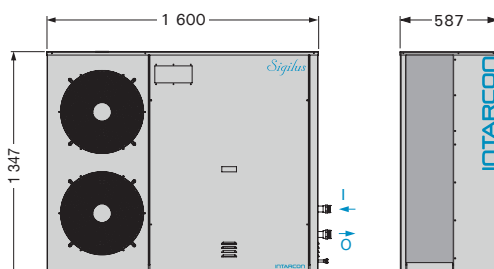
6 series



7 series



8 series



Dimensions in mm.