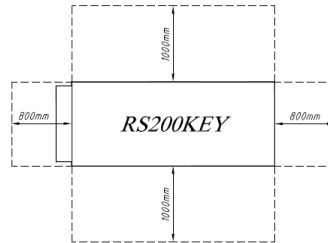


Special Very Low Temperature Air-Condensed NOVA FRIGO Chiller type RS200 KEY (EU)

23 kW Cooling Power at -35°C /air +35°C

⇒ General features

- Compliant with AIR LIQUIDE technical specification for Pre-Cooler D1266-SP-900(3)
- Dimensions : 2.700 x 1.110 x 2.370 mm (width x depth x height)
- Overall width (including electrical cabinet and manifolds) : 3.070 mm
- Output collectors at right hand side panel
- Construction providing easy access to all components
- Electrical cabinet built on left hand side panel, 2 fully opening doors (120 °)
- Stand alone chiller by design, for outdoor use in a ventilated area
- Electrical supply : 400 V – 50 Hz – 3 phases (without neutral)
- Power cable : 4G50 if distance < 20 meter, 175 Amp. protection
- Empty weight : 1.835 kg
- Sound level at 1 m : 81,5 dB(A)
- Minimal distances to be respected :



⇒ Total installed capacity

- | | |
|--|----------|
| - 2 semi-hermetic compressors 35 kW or 47 HP | 70,00 kW |
| - 1 process pump 130 l/min 6,4 bar | 7,50 kW |
| - 3 helical fans of 1,85 kW/unit | 5,55 kW |
| Total installed power : | 83,05 kW |

⇒ Cooling circuit

- Refrigerant gas : XP44 (R452A)
- Pipes according to metric interchangeable measure units with measures as follows :
 - o Liquid side : Ø16 mm = 5/8' (15,9 mm) and Ø22 mm = 7/8' (22,2 mm)
 - o High pressure side : Ø22 mm = 7/8' (22,2 mm)
 - o Low pressure side : Ø54 mm = 2'1/8 (53,9 mm)
- Cooling capacity (T temper : -35°C / T air : 35°C) : 23 kW
- Absorbed power with 2 semi-hermetic Bitzer compressors (T temper : -35°C / T air : 35°C) : 50,2 kW
- Each compressor comes with axial helical fan
- Pre-heating compressor oil 140 W resistance (1 for each crankcase / compressor)
- Synthetic ester compressor oil type POE BSE32, quantity: 167 fl oz (4,93 dm³) per compressor
- 2 independent cooling circuits containing each 17 kg XP44 (R452A) refrigerant gas, totalling 34 kgs
- Oversized V-shape condensor with 4 condensing rows, copper pipes and aluminium fins
- Patented special cooling circuit, built inside the condensor, allowing to lower the outgoing gas temperature up to 8°C, rendering the fluid tank unnecessary
- 3 helical AC fans type EC ZIEHL-ABEGG, motors of 1,85 kW
- Fan speed variation through phase cut
- Total air flow / throughput : 48.000 m³/h



Non contractual pictures

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- In addition to integrated anti-vibration devices built on the cooling circuit, 4 separately supplied adhesive neoprene strips / silent blocs (250 x 1000 x 10 mm) are to be fixed under the 4 supporting frame beams of the chiller.

⇒ **Hydraulic circuit**

- Made of Aisi 304 stainless steel with excellent corrosion resistance
- Brazed plate evaporator made of Aisi 304 stainless steel with very low pressure drops
- Stainless steel cartridge filter with large filtration surface for the protection of the evaporator
- Centrifugal EBARA process pump : power 7,5 kW - Pressure: 6,4 bars – throughput : 130 l/min or 7,8 m³/h
- Undivided, insulated, fully drainable 180 liter closed tank, made of Aisi 304 stainless steel, with vent valve and drain tab
- 2 integrated 24 liter expansion vessels mounted on fully insulated line connected to inlet
- Manifolds : Ø2' PN16 flat, vertically aligned, Aisi 304 stainless steel inlet / outlet manifolds

⇒ **Security**

- Low & high pressure gas transducers (2 circuits), microprocessors managed with 2 alarm thresholds
- Flow switch for controlling the water flow at the entry of the exchanger
- Pressure transmitter for controlling the water pressure at the pump outflow
- Thermal-magnetic protection on process pump, compressor and fans
- Integrated temperature probe and controller subjecting compressor startup to adequate pre-heating conditions
- 6 PED approved safety valves on low (4) and high (2) pressure circuits
- Earthing terminal
- Emergency stop button with key

⇒ **Management**

- Microprocessor for the automatic and preventive management of maintenance and alarms
- PROFIBUS output protocol
- LCD screen panel for the didactic showing of all essential parameters
- 4 user levels (basic, user, service, factory), the last 3 with separate password
- Working time partialization of the microprocessor controlled compressors
- Inversion of startup compressor priority for each 10 startup cycles
- Compressor management around the set point

⇒ **Tropicalisation**

- Standard tropicalization at 40°C ensuring optimal chiller performance in all climate types (cold, moderate and tropical) 24/7 thanks to a unique design of electrical and refrigeration parts (oversized heat exchanger, special electrical enclosures, reinforced pump motor winding, special gasket)

⇒ **Building**

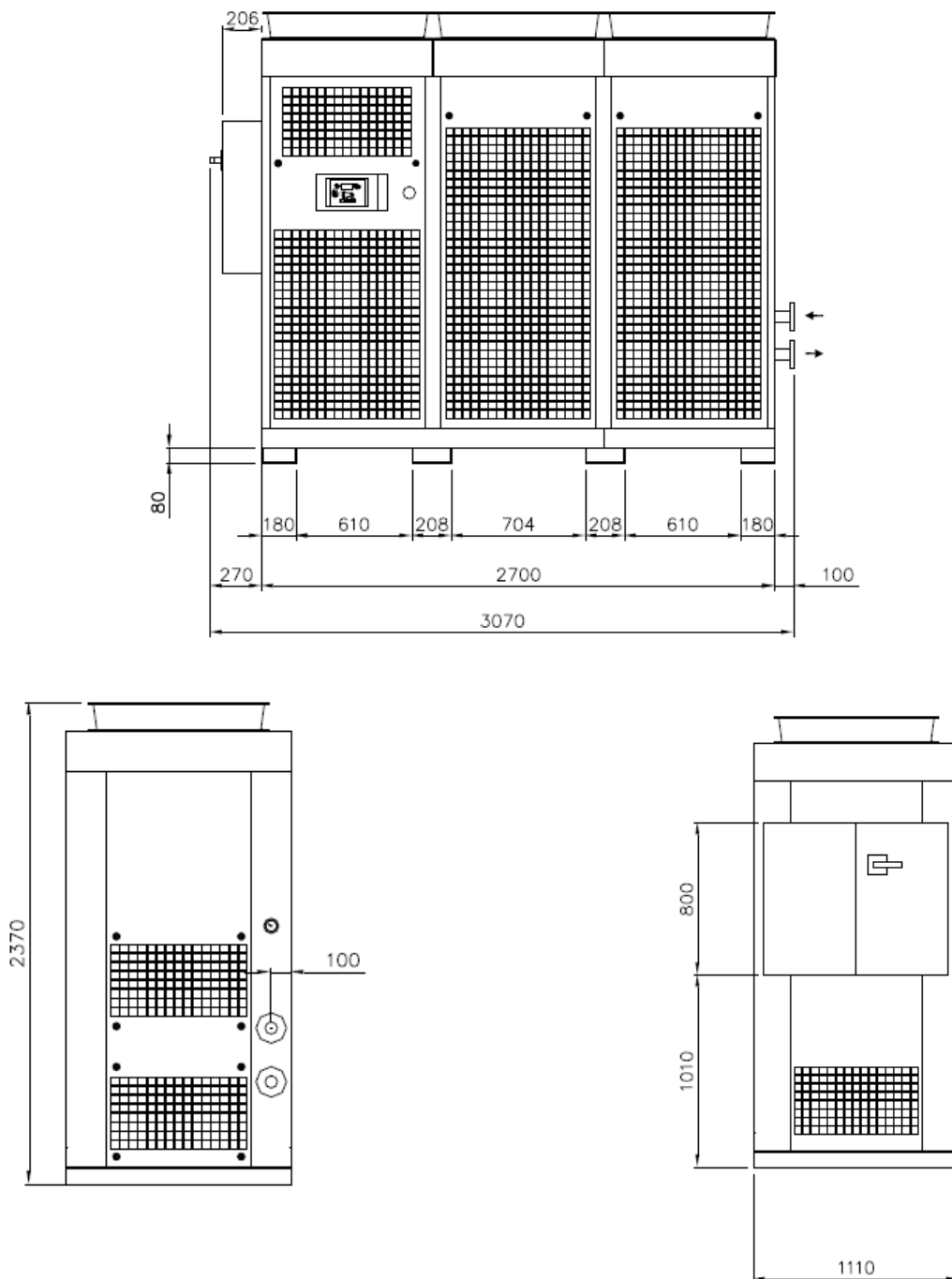
- Steel frame tested to salt air, covered with aluminium foil and 180°C oven baked polyester paint
- Steel used for frame according to type UNI EN 10346:2009 (AS) DX51D-AS120 and UNI EN 10346:2009 (Z) DX51D+Z140+Z 200-NAC
- 10 grids with permanent air filters with double SS mesh sieves : 4 in the front, 3 in the rear and 3 lateral (2+1)
- Floor fixation of the chiller through 8 perforations in the 4 supporting frame beams (and the silent blocs) and/or with Ø16 mm perforated 80 x 60 mm galvanized metallic parts (8 parts supplied) to be integrated at either side of the 4 supporting (hollow) frame beams

Non contractual pictures

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⇒ **Technical file**

- Comprehensive technical file with detailed description and certificates of all components
- Construction compliant with Machinery Directive 2006/42/CE and Directive ESP 97/23/CE
- Technical file in English language (Hardcopy and PDF version on CD-Rom)



Non contractual pictures