

Product range: Freezers -86°C vertical Touch screen

Features: --- Bio Memory 1000 -82°C TOUCH -----

**Vertical freezer (cabinet)**

**Internal capacity: 1011 litres**

**Working temperature: adjustable from – 60°C to – 86°C**

**Pre-set in a factory from -70°C to -82°C (factory changeable)**

**Temperature homogeneity at -80°C: +/-5°C**

**Maximum storage of 72,000 cryotubes 2 ml**

**Large touch screen built into the door**



**Construction:** -----

Exterior body in electro-zinged steel with Epoxy paint Inner stainless-steel tank, rounded corners. Easy cleaning

External Dimensions: H 2000 mm, W 1220 mm, D 1034 mm

Internal dimensions: H 1436 mm, W 920 mm, D 765 mm

Device mounted on 4 steerable wheels

2 adjustable upgrade jacks / 2 rear ends

**6-sided vacuum panel insulation (VIP) and high-density polyurethane foam 80 mm insulation thickness (thermal conductivity - 0.005W/m/K)**

Door with a key closure with progressive door closure

3 lip interchangeable silicone seal

Heated thermal bridge by hot gas return around door frame in order to minimize frost formation on the door seal

Heated pressure equalizer for instant door opening

**Cable pass 22 mm diameter**

**Cooling system:** -----

Cooling unit located in the lower part of the chassis with full access

Refrigeration provided by two powerful airtight compressors (2.5 & 2 hp) cascade-mounted

Cold production by the 5 internal walls

HP security press with audible alarm

Air ventilated condenser with washable filter (accessible in front of the air)

**CFC-free, HCFC-free, non-flammable refrigerators (R 417 A / R 508B)**

**Regulation:** ----- **Stability - 1°C**-----

Electronic temperature regulator assisted by industrial automation,

1 Pt 100x3 silicone-sheathed temperature sensor (regulation - display)

Simultaneous digital display of internal temperature and temperature of record

access to settings and regulatory settings protected by passcode

**Large color touchscreen LCD on the door at eyes height: midnight blue background, white temperature record numbers on SD card / Display and recording alarms**



**Security:** -----

**BoSS system to keep compressors in permanent operation in case of problems on the electronic card**

High sound and visual alarm and temperature at adjustable threshold (-10°C to -100°C)

Sound and visual alarm

Condenser blocked

Manual shutdown of the audible alarm / Voluntary acquittal of alarms

Exits for postponement of alarms (temperature / power sector) on dry contacts from 4th position (NO/NF)

Set regulation alarms powered and backed up on 24V battery and built-in chargers.

**Indoor equipment (all stainless steel):** -----

4 compartments L x D x H 887 x 743 x 350 mm (Useful dim)

4 insulated inner doors with color markers

Equipped with 3 shelves (L x D 887 x 743 mm) stainless steel adjustable to the full height (thread 25 mm)

Racks and removable shelves for complete cleaning of useful volume

# PRODUCT

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**Other supplies included:** -----

1 Washable condenser filter / 1 Power cable sector (L 2m)

**Servitudes:** -----

Power 230V / 50 Hz mono -T / 16 A / Differential Protection 30 mA curve C

Electric power: 2000 W / Heat emission max: 2000 W

Electrical consumption 0.81 Kwh/h (internal temperature stabilized - 80°C / room ambient temperature: 23°C)

Optimal performance maintained for an ambient temperature below 35 degrees Celsius

Climate Class N (16°C / 32°C)

Inf. to 55 dB

Weight: 390 Kg

Doorway x h: 1.0 x 2.00 m

**Optional equipment: ---- (possible adaptation later) ----**

- Circular chart temperature recorder
- Memory temperature recorder
- Thermocouple or Pt 100 sensor with outputs
- Release mA/C (4/20 mA)
- Liquid CO2 injection backup system supporting 150 bars (maximum pressure)
- Liquid nitrogen injection backup system (N2 steam phase)
- Cryo-accumulators (additional battery life)
- Water condenser (cooled by city water or cooled water loop)
- Internal storage equipment (for cryotubes, bags, glitter, micro plates 96 wells)
- File IQ/OQ

**Compliance:** -----

Providing a technical instruction in English

1 Certificate of Compliance

Certificate of compliance with European technical guidelines

- gas appliances: 60/396/CEE
- electromagnetic compatibility: 89/336/CEE modified 92/31/EEC and 93/68/EEC
- low voltage: 73/23/CEE modified 93/68/CEE

Compliance with NF EN 61010-1 ISO

9001 Site Manufacturing

**Device designed in France and manufactured in Europe**

**Set of equipment used from EU origin**

**SAV provided by FROILABO in and out of guarantee**