

## UPRIGHT -86°C FREEZER – 175 LITERS

Reference : BM175-86 – Reference Dutscher : 069510

### Specifications : -----Bio Memory 175 -86°C

Deep freezer, Upright model  
Clear volume : 173,8 liters  
Temperature range from -60°C up to -86°C  
Uniformity at -80°C : +/- 3°C  
**Maximum storage capacity : 12 000 x 2mL cryotubes**

### Construction : -----

Chassis with epoxy paint  
**Lining and fittings in 304 stainless steel, rounded corners. Easy cleaning**  
Ext. Dimensions : H 1330 mm, W 875 mm, D 712 mm  
Int. Dimensions : H 620 mm, W 630 mm, D 452 mm  
4 castors and 2 levelling adjusters  
2 rear spacing stops ensure the free circulation of air behind the freezer  
**6 walls insulation with VACUUM INSULATION PANNEL (VIP) and polyurethane foam**  
**Insulation thickness = 80 mm (Thermal conductivity < 0,005 W/m/K)**  
Door closure with progressive tightening  
Heated silicone door seal with 3 lips limits frost formation  
**Heated pressure equaliser for instant door opening**  
Cable entry port diam. 22mm

### Cooling system : -----

Refrigeration system located at the bottom of chassis. Easy access.  
2 hermetically sealed powerful cascade compressors (3/4 + 5/8 ch)  
Refrigeration assured by the 5 internal walls  
Safety pressure switch with automatic resetting connected to the ringing alarm  
Air-cooled condensor with washable filter. Easy access in front.  
**Non flammable, CFC Free and HCFC Free refrigerent gas (R417a & R508a)**

### Regulation system : -----Stability +/- 1°C -----

Electronical regulation system assisted by an industrial controller  
1 silicone-sleeved type Pt 100 x 3 strands temperature sensors (control + safety)  
Simultaneous digital indication of the set point and actual temperature  
Locking of the control panels keys

### Safety -----

High and low temperature audible and visible alarm / adjustable alarm set point from +10 up to -100°C  
Audible and visible indication "blocked condenser alarm" / "opened door alarm"  
Manual cancellation of the audible alarm  
**Outputs for remote alarm connections (temperature, power failure) on dry contact (NO/NF)**

### Safety options :

- back up by a 24 V battery
- Pt 100 sensor with outputs for remote monitoring

### Accessories -----(stainless steel)-----

2 compartments W x D x H 597 x 445 x 305 mm (useful dimensions)  
2 independent sub-door provide additional protection with some colour marks  
Supplied with 1 adjustable stainless steel shelf (W x D 597 x 445 mm)  
Removable racks and shelves for a complete cleaning

### Included with the Bio Memory -----

- 1 washable condenser filter
- 1 power supply cable (L 2m)

**Requirements :** -----

Noise level < 55 dBA  
Voltage : 230V / 50 Hz single phase + neutral                      Amps : 16 A  
Permissible ambient temperature up to +35°C  
Nominal power : 900 W  
Net weight : 185 Kg  
Ease of installation (2 m x 0,8 m , fits standard doorway)

**Options to be quoted on demand :** -----

- Circular chart recorder
- Networked or Standalone Graphic DAQ Recorder
- Additional Pt 100 or thermocouple sensor
- mA / °C output (4 / 20 mA)
- Backup system inject liquid CO<sub>2</sub> with 150 bar max electrical valve
- Backup system inject N<sub>2</sub>
- Cryo-accumulators
- Water cooling
- Storage organisation (for cryotubes, cryoboxes, pockets, 96-well panels)
- IQ / OQ file

**Conformity :** -----**supplying of operating instructions in english**

- positioning / installation / use / preventive maintenance
- electrical and refrigeration diagrams
- spare parts list
- industrial controller, regulation system and recorder instructions
- internal quality control certificate

**1 conformity certificate**

**1 maintenance book**

60/396/CEE / 92/31/CEE et 93/68/CEE/ 93/68/CEE european technical norms conformity certificate

**Warranty :** -----

2 years parts  
5 years motor-fan condenser  
5 years compressors  
10 years insulation

Designed in France (Meyzieu 69) and produced in E.U.