ULTRA DEEP FREEZER
Model CRYO 500
(505 Lt.)

CHARACTERISTICS:

- **CAPACITY:** 505 Lt.;
- **EXTERNAL DIMENSIONS:** cm 97 x 96 x 184 (W x D x H);
- **INTERNAL DIMENSIONS:** cm. 70 x 65 x 111 (W x D x H);
- **INTERNAL COMPARTMENTS DIMENSIONS:** cm. 70 x 65 x 26 (W x D x H);
- **CABINETS:** 1 ea.
- **WEIGHT:** 320 Kg.;
- **POWER SUPPLY:** 230 / 50-60 / 1 + G;
- **POWER CONSUMPTION:** Ca. 550 W (average referred at ambient T°C +23°C with a normal operation);
- **TEMPERATURE RANGE:** from -50°C to -86°C;
- **SHELVES:** 4 ea.; with independent door and built in evaporating system + 4 movable shelves.
- **CERTIFICATIONS:** The equipment is certified in accordance with:
  - CEI 66/5 UNI EN 61010-1/A2;
  - CEI EN 61326-1
  - ISO 9001:2008 certified manufacturer;

MECHANICAL STRUCTURE:

- **INTERNAL FRAME:** AISI 304 stainless steel (AISI 316 on request) with polished external BA finish for best resistance and cleanliness;
- **EXTERNAL FRAME:** zinc-plated and pre-painted steel sheet (AISI 304 stainless steel on request) satin finish;
- **THERMAL INSULATION:** non-CFC, non-HCFC PU foam, min. thickness 140 mm;
- **SEALING GASKET:** Triple silicone rubber (prevention against air leaks);
- **GASKET HEATING:** frost formation prevention by means of the “hot gas” recirculation coils; high reliability and energy saving (it does not use additional power by electric heaters);
- **COMPENSATION VALVE:** for internal/external pressure compensation, to facilitate door open/close;
- **INTERNAL ROOMS:** 4 ea. stainless steel at standard;
- **COUNTER DOORS:** 4 ea. (for each shelves) with 20-mm. PU foam, to minimize cold loss when the external door is open;
• DOOR: one wing type, with one-hand minimum force opening system, highly ergonomic to facilitate closing/opening, complete with locking key;

• COMPENSATION VALVE: to facilitate the in/out pressure compensation, to ease the opening/closing actions;

• WHEELS: 4 ea. bearing wheels for ease of maneuvering of the freezer inside the laboratory;

REFRIGERATION SYSTEM

• COOLING SYSTEM: fully sealed cooling circuit with hermetic compressors arranged in cascade, complete with MCB protection and pressure gauge to monitor condensation pressure (MR);

• EVAPORATING SYSTEM: direct expansion s.steel coils thermally connected to the inner s.steel shelves surfaces, for a high internal temperature uniformity;

• CONDENSING SYSTEM: air-type high-surface finned condenser; the blower is controlled by an inverter to change its speed according to the air temperature at the condenser exit;

• THERMAL PROBES: 2 ea. Pt100 probes, one used for thermoregulation, the second for alarm (switched to regulation in case of main probe failure);

• SAFETY THERMOSTAT: switches off the appliance from power supply in case of a main regulator breakdown, Temperature exceeds the max safety value (adjustable and preset by the user);

• CONTROL SYSTEM: micro processor ARM9, the same processor applied in smart-phones. The controller has a video-graphic interface, done with a touch screen TFT display. This controller, not only is equipped with a more powerful processor and with much capacity of memory RAM, if compared to the previous models, it has an user interface so direct, that anyone will find it really user-friendly.
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