

# Laboratory Chest Deep Freezer

# LCDF 220 PRO

PICTURE AVAILABLE SOON

## TECHNICAL CHARACTERISTICS:

- **Structure** : completely in sheet steel white epoxy coated (rust-proof material) outside and embossed aluminium inside
- **Insulation** : high density (40 Kg/m<sup>3</sup>) foamed-in-place polyurethane, with a thickness of 100 mm. CFC-free
- **Feet** : Nr 4, fix (not adjustable), made in plastic material, granting the maximum stability
- **Lid** : Nr 1 hinged, fully insulated, realized in sheet steel white epoxy coated outside and atoxic plastic material inside. The lid is fitted up with counterbalanced hinges (to avoid unexpected lid closing), external robust, ergonomic handle, perimetric magnetic rubber gasket (granting a perfect seal) and security key locking
- **Control panel "PRO"** : located in the right part of the structure (at the side of the lid), it is microprocessor operating with soft-touchpads and LCD display, allowing the control of all the functions and working status of the freezer (including alarms). The control panel is battery operating in order to grant the functioning of the alarms even in case of

power failure. The main functions of the control panel are :

- Large (2 lines writings) LCD display, retro-illuminated white colour with black characters, indicating the appliance working status (compressor functioning, defrosting, alarm running, actual temperature, etc.)
- Digital temperature adjusting and displaying with an accuracy of 0,5°C
- Keyboard password protected with automatic locking, to avoid tampering from unauthorized persons
- Back-up battery, with automatic recharging, granting till 48 hours autonomy for the control panel functioning in case of power failure
- Visual and acoustic alarm signalling (with automatic resetting) for:
  - high and low temperature with limits programmable from the user
  - power failure
  - battery discharged
  - condenser dirty
  - anti-freezing evaporator
  - sensors failure
- Muting facilities for the acoustic alarms, with continuous warning indication on the display and automatic ring-back after 3 minutes if the alarm situation persists
- Test facilities for both battery charging status and alarm limits
- Alarms memory (not deletable) for the last 30 alarm conditions, with the possibility of checking from the display, the alarm condition, when the alarm is started, when it is ended and which is the highest or lowest peak reached from the temperature (if applicable)
- Events memory with the possibility of checking from the display, defrostings, relays status, etc.
- Pt1000 sensors for a better accuracy of the temperature control
- NO/NC contact to remote the alarm signals
- RS 485
- **Cooling unit** : bottom mounted, with the condensing unit compounded by Nr 1 hermetic compressors and Nr 1 finned condenser, air cooled through a fan. Also, foamed into the insulation of all storage chamber walls, there are the evaporating pipes, in order to grant the maximum temperature stability and uniformity. All the used components are industrial grade granting the maximum reliability
- **Defrosting** : manual, with discharging hole for draining facilities for the derivate water
- **Refrigerant** : CFC- and HCFC-free
- **Refrigeration** : static, with evaporating pipes throughout all the chamber in order to grant maximum temperature stability and uniformity
- **Temperature range** : infinitely adjustable between -20°C and -45°C
- **Voltage (V/ph/Hz)** : 220-230/1/50
- **Plug** : Schuko type
- **Noise level (dB(A))** : ≤ 50

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- **Gross capacity (litres) :** 235
- **Net capacity (litres) :** 220
- **Dimensions (W x D x H cm) :** 132 x 73 x 87
- **Net weight (Kg) :** 90
- **Packed dimensions (W x D x H cm) :** 144 x 85 x 112 (1,37 m<sup>3</sup>)
- **Gross weight (Kg) :** 110



\* The declared performances are referred at +35°C ambient temperature, relative humidity of 70% and without any internal thermal mass (empty cabinet).

\* Should it be necessary or useful without undermining any model essential features, technical and stylistic characteristics are subject to be changed without manufacturer's previous notice.

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### ACCESSORIES AVAILABLE



Wire basket



Kit of rollers



Temperature chart recorder



Electronic temperature printer

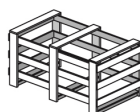


Data logger function with USB port



**240V / 60 Hz**

Different voltage

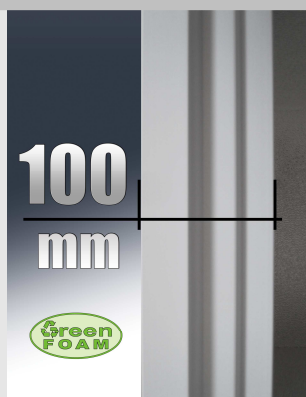


Wooden crate packing

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# NEWS 2011! NEWS 2011! NEWS 2011!



## Increased insulation thickness from 80 to 100 mm

- ecological polyurethane foam insulation
- improved temperature holding time to grant an higher safety level for the stored products
- reduction of the energy consumption, through the inferior working time of the cooling unit, till a 20% respect a comparable models with inferior insulation thickness



## Draining facilities for the water derivate from defrosting

- make easy the draining operations



## Datalogger-function through USB port (optionally available)

- easy to use
- easy accessibility as the USB port is directly placed in the front panel of the cabinet
- record on a supplied USB flash drive all the most important information of the cabinet such as temperature trends, alarms and door openings
- functioning with whatever PC Windows operating, with Excel installed. The downloaded datas can be checked anytime, without the need of having a dedicated software installed
- no training required for its use as Excel is a commonly available software widely used
- no cost of installation, as the system do not require any network cabling
- maximum freedom in the use, as the cabinet can freely moved without the need to re-create any network
- adjustable recording intervals
- the USB flash drive can contain the recordings till up 5 years operations (with recording intervals every 10 minutes)