

# Blood Bank Refrigerator Solid

# BBRS 1160 PRO



## TECHNICAL CHARACTERISTICS:

- **Structure** : upright type, realized in sheet steel epoxy coated white colour both in- and outside or in stainless steel 18/10 AISI 304 both in- and outside. All the internal corners are rounded to make easy any cleaning operations and the internal bottom is tray type to contain spills
- **Insulation** : high density (40 Kg/m<sup>3</sup>) foamed-in-place polyurethane, with a thickness of 75 mm. CFC-free
- **Feet** : Nr 4 made in stainless steel 18/10 AISI 304, adjustable in height for levelling
- **Insulated doors** : Nr 2, hinged, side-by-side, made with the same material and insulation as the rest of the structure (sheet steel epoxy coated white colour or stainless steel 18/10 AISI 304 always both in- and outside). The doors are provided with a removable magnetic rubber gaskets in order to grant a perfect hermetic closing. The handles are flush-fitting type so do not increase the size of the refrigerator. The doors are also fitted with a spring loaded automatic closing devices for openings inferior 90° and special door switches that stop the internal ventilation at the door opening (to limit the air cold loss) and light the internal lighting at every opening
- **Internal equipment** : Nr 14 (7 into each door), storage drawers realized in stainless steel 18/10 AISI 304. The drawers are mounted on special ball-bearing anti-tilt telescopic stainless steel slides that allows the drawer complete extraction and they are divided internally in 4 storage columns and fitted with 8 adjustable plastic dividers to keep the bags separated among them. The

drawers can easily removed and adjusted in height without the use of any tool

- **Storage capacity** : Nr 560, 450 ml blood bags
- **Internal lighting** : Nr 2 bulbs, mounted in the bottom part of the control panel (1 above each door), with automatic activation at every door opening through a special switch
- **Control panel "PRO"** : located in the top part of the structure (above the door), it is microprocessor operating with soft-touchpads and LCD display, allowing the control of all the functions and working status of the refrigerator (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
    - door ajar, delayed of 3 minutes to allow the standard operations
    - 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)

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- Events memory with the possibility of checking from the display, defrostings, door openings, relays status, etc.
- Pt1000 sensors for a better accuracy of the temperature control
- Internal ventilation setting
- NO/NC contact to remote the alarm signals
- RS 485
- **Temperature chart recorder** : the temperature chart recorder traces on circular paper-charts (125 mm Ø) the temperature of the refrigerator with the range -10°C / +40°C, with weekly recording. The temperature chart recorder is provided with a transparent perspex cover allowing immediate control of the chart, which is fitted with key locking to avoid tampering. It works with a 1,5V battery (AA size) in order to record even during power failure periods. Supplied with the recorder, 100 paper-charts (suitable for almost 2 years recordings) and 1 ink tip
- **Cooling unit** : top mounted, with the condensing unit compounded by Nr 1 hermetic compressors and Nr 1 finned condenser, air cooled through a fan. Also, in the ceiling of the storage chamber, is mounted the finned evaporator with copper pipes, that is housed into a stainless steel cover that incorporate the fan. All the mounted components are industrial grade to grant the maximum reliability
- **Refrigerant** : R404a CFC-free
- **Refrigeration** : forced-air, through a fan, granting the maximum temperature uniformity and stability inside of the cabinet
- **Defrosting** : completely automatic, thermostat controlled. The condensate water is automatically channelled into an heated tray, located under cabinet, for the automatic evaporation of the condensate water
- **Temperature range** : infinitely adjustable between 0°C / +15°C
- **Voltage (V/ph/Hz)** : 220-230/1/50
- **Plug** : Schuko type
- **Breakers** : Nr 2 glass cartridge fuses with a rating of 10A, at protection of the appliance
- **Noise level (dB(A))** : ≤ 52
- **Gross capacity (litres)** : 1295
- **Net capacity (litres)** : 1160
- **Dimensions (W x D x H cm)** : 150 x 70 x 210
- **Net weight (Kg)** : 260
- **Packed dimensions (W x D x H cm)** : 158 x 98 x 224 (3,47 m<sup>3</sup>)
- **Gross weight (Kg)** : 290



\* The declared performances are referred at +38°C a mbient 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.

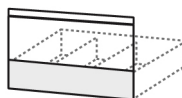
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## ACCESSORIES AVAILABLE



Plastic partitions for drawers



Front top for drawers



Kit of castors



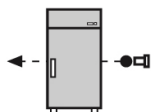
Safety door lock with key



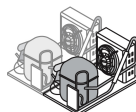
Electronic temperature printer



Data logger function with USB port



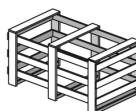
Cable port with cover



Back-up cooling unit



240V / 60 Hz Different voltage

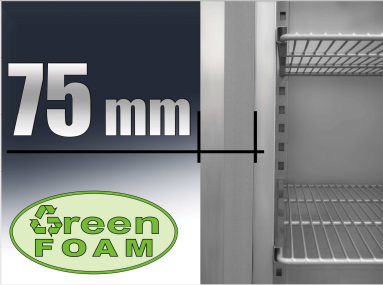


Wooden crate packing

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# NEWS 2011! NEWS 2011! NEWS 2011!



### Increased insulation thickness from 60 to 75 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 30% respect a comparable models with inferior insulation thickness



### New stainless steel evaporator cover

- heavy-duty stainless steel cover
- optimize the airflows
- incorporates fan with increased diameter to grant a better air-circulation and increase the temperature uniformity all over the storage chamber



### Standard fitted heated tray for the automatic evaporation of the condensate water

- higher comfort of use
- fully automatic functioning

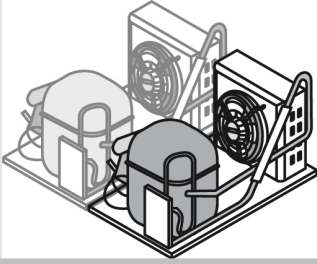


### Datalogger-function through USB port (optionally available)

- 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)

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## **Back-up cooling unit (optionally available)**

- higher safety level for the stored products
- fully automatic functioning with swapping-over in case of malfunctions to one of the motors
- clear indications about the working status and alarms (written indications, no codes)