



TECNILABO

HS Code: 84185090

## KLAB R1500V HTS

Laboratory/Pharmacy Refrigerator +5°C

**Intended Use** Storage of samples/specimens/pharmaceuticals/medications/vaccines

### Technical Features

|                                      |                                               |
|--------------------------------------|-----------------------------------------------|
| <b>Nominal / Net Storage Volume</b>  | 1500 lt (52,97 cu ft) / 1315 lt (46,44 cu ft) |
| <b>Temperature Range</b>             | 0°C/+15°C                                     |
| <b>Temperature Set Point</b>         | +5°C                                          |
| <b>Temperature Uniformity</b>        | ± 3°C                                         |
| <b>Temperature Stability</b>         | ± 1°C                                         |
| <b>Ambient Operating Temperature</b> | +10°C/+43°C, 50% RH (SN-T Climate Class)      |
| <b>Noise Level</b>                   | < 42 dBA                                      |

|                                 |                                               |
|---------------------------------|-----------------------------------------------|
| <b>Power Supply</b>             | 220-240V / 50Hz                               |
| <b>Standard Electrical Plug</b> | Schuko (electric cable length 3mt)            |
| <b>Power Absorption</b>         | 3,50 A                                        |
| <b>Daily Energy Consumption</b> | 2,50 kWh/24h (with +20°C ambient temperature) |

|                            |                                                                |
|----------------------------|----------------------------------------------------------------|
| <b>External Dimensions</b> | W 1460 x D 840 x H 2050 mm   W 57,48 x D 33,08 x H 80,70 inch. |
| <b>Internal Dimensions</b> | W 1300 x D 670 x H 1510 mm   W 51,18 x D 26,38 x H 59,45 inch. |
| <b>Weight</b>              | 230 kg                                                         |

|                           |                                                                                                             |
|---------------------------|-------------------------------------------------------------------------------------------------------------|
| <b>Packing Dimensions</b> | Carton Box + Pallet: W 1500 x D 900 x H 2200 mm, 240 kg<br>Wooden Cage: W 1650 x D 1000 x H 2400 mm, 340 kg |
|---------------------------|-------------------------------------------------------------------------------------------------------------|

|                                |                                                                                                                      |
|--------------------------------|----------------------------------------------------------------------------------------------------------------------|
| <b>External Surface</b>        | Satin-finished AISI 304 stainless steel                                                                              |
| <b>Internal Surface</b>        | AISI 304 18/10 stainless steel                                                                                       |
| <b>External/Internal Edges</b> | Rounded for easy and optimal cleaning                                                                                |
| <b>Insulation Type</b>         | High-density CFC-free PUR foam                                                                                       |
| <b>Insulation Thickness</b>    | 80 mm on sides / 80 mm rear                                                                                          |
| <b>(n°2) Door Type</b>         | Double-layer tempered glass with anti-fog, self-closing system (with opening angle ≤90°), ergonomic handle, key-lock |
| <b>Door Sealing</b>            | Magnetic silicone gasket placed all over the door's frame                                                            |
| <b>Lighting</b>                | LED light, with automatic switching on when the door is opened and/or from the display icon                          |

|                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
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| <b>Standard Configuration</b> | <ul style="list-style-type: none"><li>- n°6 wire shelves made in PVC-coated steel, adjustable in height (Dimensions W 530 x D 650 mm) with max load 35 kg each</li><li>- n°4 swivel castors (front castors equipped with brakes)</li><li>- Porthole (Ø 25 mm) for introducing in the chamber independent probes connected to external monitoring system/BMS</li><li>- 7,2A backup battery with self-charging circuit (48 hours autonomy in case of power failure)</li><li>- Volt-free dry contacts (NC-NO) for remote alarms connection to an independent alarm monitoring system /BMS</li></ul> |
| <b>Max Shelves / Drawers</b>  | 14 / 14 (or a mix of them)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

### Cooling System

|                                    |                                                                                       |
|------------------------------------|---------------------------------------------------------------------------------------|
| <b>Cooling</b>                     | Forced-air cooling, with automatic shut-off of the evaporator fan during door opening |
| <b>Compressor</b>                  | Fully sealed hermetic compressor with thermal protector                               |
| <b>Refrigerant (CFC/HCFC free)</b> | R290 (gr. 100)                                                                        |
| <b>Defrost System</b>              | Fully automatic with automatic collection and evaporation of condensation water       |

### HTS Control System

|                           |                                                                          |
|---------------------------|--------------------------------------------------------------------------|
| <b>Controller</b>         | Microprocessor Controller                                                |
| <b>Display</b>            | 5" TFT LCD full colour touch screen display, with 0.1°C regulation steps |
| <b>Temperature Probes</b> | n°2 NTC probes (for evaporator / control) + n°1 Pt100 (for monitoring)   |
| <b>Access Control</b>     | 3-levels password security system (User/Service/Admin)                   |
| <b>Connectivity</b>       | USB port                                                                 |

|                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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| <b>Features</b> | <ul style="list-style-type: none"><li>- The main screen displays the temperature set point, high/low T limits, battery level, date/time, LED light ON/OFF switch</li><li>- Possibility to view the real-time temperature graph on the display</li><li>- Data logger function with automatic recording of temperature data (at 30-seconds intervals) and events (last 32 displayed)</li><li>- Internal memory (built-in 4GB SD card) capable of recording data for a minimum period of 10 years</li><li>- Data history menu for consultation and selection of temperature data records, events and alarms of the device</li><li>- Alarm Test function (for checking the correct functioning of the buzzer and the remote alarm relay switching)</li><li>- Possibility to mute the alarm notifications</li><li>- ECO mode (Night &amp; Day function)</li><li>- Safety thermostat with anti-freezing (factory pre-set limit at +2°C) and anti-heating (factory pre-set limit at +8°C)</li></ul> |
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| <b>Main Alarms List<br/>(Audio/visual notification)</b> | <ul style="list-style-type: none"><li>- Power failure</li><li>- Door open (the alarm interval can be freely set by the user)</li><li>- High/Low temperature (alarm limits can be set freely by the user)</li><li>- Temperature probes failure</li><li>- Back-up battery failure / low charge</li></ul> |
|---------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|





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## Standard Features



Adjustable wire shelf with fixing system



LED light



Swivel castors with brake



Int/Ext. Porthole



Door switch



Remote alarm contacts



HTS controller



Door gasket



Back-up battery

## Optional Accessories Available On Request

Additional height-adjustable wire shelf made in PVC-coated steel (n°4 fixing hooks included)  
(Shelf's size W 530 x D 650 mm)



RS485 bridge module with serial port for PC/BMS connectivity



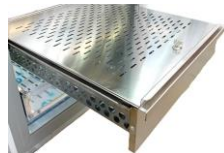
Perforated drawer (sliding on telescopic guides) made in AISI 304 18/10 stainless steel with plexiglass front panel  
(Drawer's size W 535 x D 635 x H 130 mm)



RJ45 port for Ethernet connection (ModBus TCP/IP) to BMS for remote monitoring



Perforated drawer (sliding on telescopic guides) made in AISI 304 18/10 stainless steel, lockable for narcotics storage  
(Drawer's size W 535 x D 635 x H 130 mm)



RJ45 port for connection to the free KW Cloud and APP (for remote monitoring, data downloading and setting alarm notifications via email in real time)



Plexiglass dividers kit for dividing each drawer into 44 separate sections



Inner power socket (max 2A) with external switch



Pt100 temperature probe enclosed in vial filled with glycol solution (for product simulation)



Wi-Fi connection module to the free KW Cloud and APP (for remote monitoring, data downloading and setting alarm notifications via email in real time)



Weekly cycle chart disk recorder (including n°52 spare paper disks + n°1 pen)



Electric lock for door opening with PASSWORD  
(Possibility to register up to n°32 user passwords)



Voltage stabilizer



Electric lock for door opening with BADGE/RFID



n°2 front leveling feet kit



Packing in wooden cage



## Cloud & APP Remote Control



Connex  
FLEX CONTROLLER  
MANAGEMENT



**Connex** is the free application (IOS/ANDROID) that allows end users to wirelessly monitor and control PL ADV/HTS controllers installed in refrigeration units. It allows complete control in real time and also remotely of one or more devices, to consult the weekly temperature graph (downloading the data in PDF/Excel format) and to receive alerts via push messages and email.



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**Pricing on any accessories shown can be found by keying the part number into the search box on our website.**

The specifications listed in this brochure are subject to change by the manufacturer and therefore cannot be guaranteed to be correct. If there are aspects of the specification that must be guaranteed, please provide these to our sales team so that details can be confirmed.

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