



TECNILABO

HS Code: 84185090
KLAB F1500C HTS
Biomedical Freezer -20°C

Intended Use Safe storage of sensitive biological samples/vaccines/medications

Technical Features

Nominal / Net Storage Volume	1500 lt (52,97 cu ft) / 1315 lt (46,44 cu ft)
Temperature Range	-10°C/-25°C
Temperature Set Point	-20°C
Temperature Uniformity	± 5°C
Ambient Operating Temperature	+10°C/+43°C, 50% RH (SN-T Climate Class)
Noise Level	< 45 dBA

Power Supply	220-240V / 50Hz
Standard Electrical Plug	Schuko (electric cable length 3mt)
Power Absorption	4,50 A
Daily Energy Consumption	3,50 kWh/24h (with +20°C ambient temperature)

External Dimensions	W 1460 x D 840 x H 2050 mm W 57,48 x D 33,08 x H 80,70 inch.
Internal Dimensions	W 1300 x D 670 x H 1510 mm W 51,18 x D 26,38 x H 59,45 inch.
Weight	220 kg

Packing Dimensions	Carton Box + Pallet: W 1500 x D 900 x H 2200 mm, 230 kg Wooden Cage: W 1650 x D 1000 x H 2400 mm, 330 kg
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External Surface	Satin-finished AISI 304 stainless steel
Internal Surface	AISI 304 18/10 stainless steel
External/Internal Edges	Rounded for easy and optimal cleaning
Insulation Type	High-density CFC-free PUR foam
Insulation Thickness	80 mm on sides / 80 mm rear
(n°2) Door Type	Solid with self-closing system (with opening angle ≤90°), ergonomic handle, key-lock
Door Sealing	Magnetic silicone gasket placed all over the door's frame
Lighting	LED light, with automatic switching on when the door is opened and/or from the display icon

Standard Configuration	- 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 - n°4 swivel castors (front castors equipped with brakes) - Porthole (Ø 25 mm) for introducing in the chamber independent probes connected to external monitoring system/BMS - 7,2A backup battery with self-charging circuit (48 hours autonomy in case of power failure) - Volt-free dry contacts (NC-NO) for remote alarms connection to an independent alarm monitoring system /BMS
Max Shelves / Drawers	14 / 14 (or a mix of them)

Cooling System

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

HTS Control System

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

Features	- The main screen displays the temperature set point, high/low T limits, battery level, date/time, LED light ON/OFF switch - Possibility to view the real-time temperature graph on the display - Data logger function with automatic recording of temperature data (at 30-seconds intervals) and events (last 32 displayed) - Internal memory (built-in 4GB SD card) capable of recording data for a minimum period of 10 years - Data history menu for consultation and selection of temperature data records, events and alarms of the device - Alarm Test function (for checking the correct functioning of the buzzer and the remote alarm relay switching) - Possibility to mute the alarm notifications - ECO mode (Night & Day function)
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Main Alarms List (Audio/visual notification)	- Power failure - Door open (the alarm interval can be freely set by the user) - High/Low temperature (alarm limits can be set freely by the user) - Temperature probes failure - Back-up battery failure / low charge
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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



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



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)



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



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)



Voltage stabilizer



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



n°2 front leveling feet kit



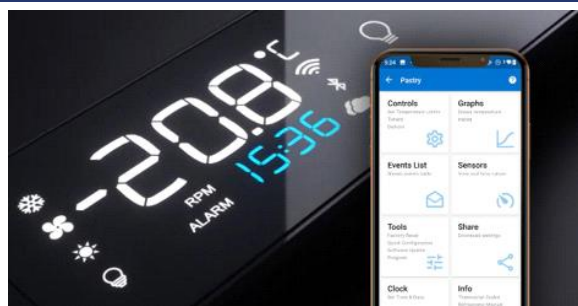
Electric lock for door opening with BADGE/RFID



Packing in wooden cage



Cloud & APP Remote Control



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.

www.wolflabs.co.uk

Tel : 01759 301142

Fax : 01759 301143

sales@wolflabs.co.uk

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