



NEXUS 340 V-3 EVO

Upright ULT freezer -80°C

Upright ultra-low temperature freezer with microprocessor and large 7" digital display, ideal for long-term storage at very low temperatures. Exclusive, silent and powerful cooling system, with two air-cooled cascade compressors that use environmentally-friendly gaseous coolants

Intended use:

Used in all situations where **biological samples** need to be **stored** for a long period of time.

Applications:

Usually used in scientific **laboratories**, pharmaceutical research, hospitals, and any other application that calls for the storage of any material of human at extremely low temperatures.

Features

Ultimate protection

The choice of AISI 304 stainless steel for the inner tank guarantees ultimate protection against corrosion and a long lifespan for the ult freezer.

State-of-the-art controller

Nexus ULT freezers are managed electronically by a state-of-the-art electronic controller that optimises their efficiency and functions

Ergonomic handle

The modern mechanical handle uses a lever for opening and closing, which offers maximum pressure with minimal effort when opening and closing the door. This enhances the protection of the ULT freezer from the external environment and helps limit the formation of ice. The power-assisted system completely cancels out any friction, making it easy to open or close the door with just one hand.

Excellent uniform freezing

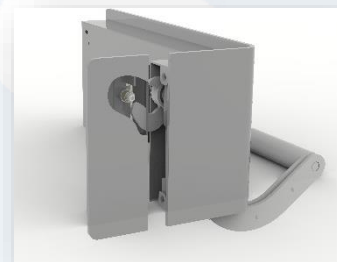
The cooling system uses a coil for quick, steady cooling, guaranteeing elevated stability and a uniform internal temperature.

Optimisation of internal spaces

The ULT freezer is fitted with a system of height-adjustable shelves, enabling the efficient use of the space inside and easy access to the containers and boxes (optional extras).



INTERIOR
AISI 304



Detail of the handle



ULT freezer with racks and boxes (optional extras)

Construction Characteristics

Structure

Outside/Inside: External structure in sheet steel painted with grey epoxy powders and internal chamber in AISI 304 stainless steel with rounded corners to facilitate cleaning.

Insulation: Obtained with PU - HCFC Free foams. 140 mm thick

Wheels: Four (4) castor wheels incorporated in the contours of the freezer and complemented by two (2) adjustable front feet to keep the freezer stationary.

Inner doors: Three (3) inner doors in a compound material (PU, Insulation thickness 30 mm) to prevent heat entering when the main door is opened. Each inner door has a magnetic closure system.

Shelves: Three (3) shelves in AISI 304 stainless steel - two (2) are height-adjustable and one (1) is fixed (internal base). If necessary, the dimensions of the individual compartments can therefore be altered by moving the two (2) shelves as required.

Through hole: 23 mm (on the left side of the freezer).

Door

Exterior in sheet steel, painted with grey epoxy powders and thermoformed interior. Equipped with special magnetic gaskets with double gasket. The door is equipped with an external key and a sturdy handle to facilitate closing and opening operations



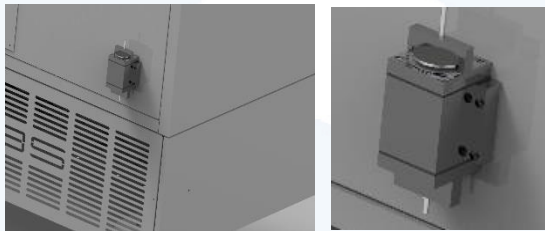
Detail of the wheels



Detail of the through hole

Compensation valve

Minimised ice formation and energy consumption thanks to the newly designed compensation valve positioned on the back of the freezer, on the outside.

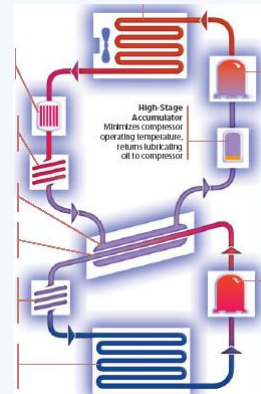


Cooling system

Based on a special cascade cycle that uses two airtight compressors.
Copper pipe coil wound around the freezer tank.

- ✓ 1st stage: R452a
- ✓ 2nd stage: Mix R23+R290+R170

Anti-dust condenser filter that can be removed and washed.

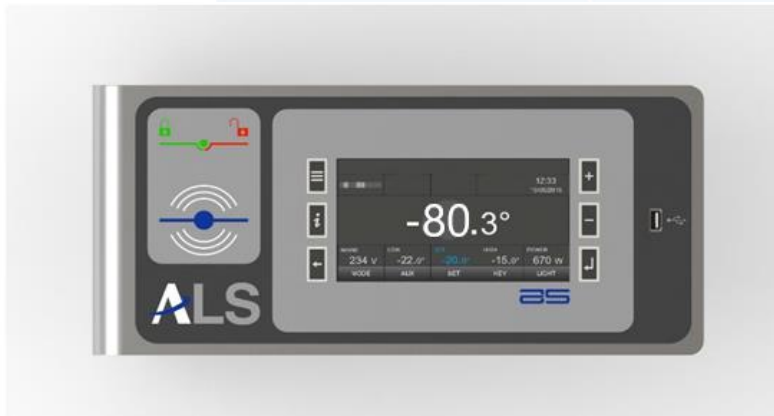


Command Controls

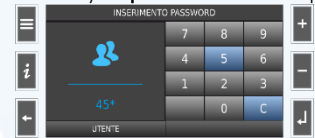


ACP7 controller: consumption optimisation and continuous monitoring

ACP7 state-of-the-art controller with built-in electronic temperature register guarantees top performance, ultimate safety and ease of use:



- ✓ **Simple, practical interface**
- ✓ **Access protected by a password** with 3 privilege levels: USER, SERVICE and



ADMINISTRATOR

- ✓ **Three separate processors** that communicate with each other via a CAN-BUS connection



- ✓ **Internal microSD card** (not removable) for recording operating data **for 10 years** (every 30 seconds)

- ✓ **Integrated USB port** on the front for:
 - downloading registered temperature data
 - configuring the devices connected
 - updating the firmware



- ✓ **7" touch screen** with simplified vision or graphic screen page that simultaneously shows:
 - the device ID
 - the system date and time
 - the set temperature (0.1°C resolution)
 - the operating temperature (0.1°C resolution)
 - the alarm setting
 - the temperature chart

PAUSA <i>nessuna icona</i>	ATTESA	RAFFREDDA	SBRINA	GOCCIOLA
RISCALDA	UMIDIFICA	DEUMIDIFICA	BACKUP CO2	BLOCCO REGOL
RAFFR./DEUMID	RAFFR./UMID	SBRINA/DEUMID	SBRINA/UMID	RISCALDA/DEUMID

✓ User-friendly **navigation with ideograms** for quickly and easily viewing the menu steps, and a colour code for identifying the alarms

Innovative functions:

SMART DIAGNOSTIC function to constantly monitor the degree of wear of the main components. When the maximum pre-set wear threshold is reached, a **WARNING** will appear on the display reminding the user to replace it and thereby reduce the risk of machine downtime.

The **ULT freezer has a BACK-UP BATTERY** that regularly tests the charge status. In the event of a mains failure, the battery has an autonomy of 36 hours if in perfect condition.

VITA RELE	ALTO UTILIZZO COMPRESSORE con percentuale giornaliera 89 %	CONDENSATORE INTASATO	SBILANCIAMENTO SONDE Tra sonda monitor e Termostato
TENSIONE DI ALIMENTAZIONE con valore di tensione 15.8 V	TENSIONE DI RETE con valore di tensione 203 V	BATTERIA SCONNESSA	ASSENZA RETE

List of alarms:

- High or low temperature (adjustable setting)
- Prolonged "door open" condition
- No power supply, or voltage outside the permitted range
- Compressor malfunction
- Relay malfunction
- Buffer battery dead
- Sensor malfunction
- Condenser dirty
- 12V AC power supply outside range
- Mains voltage outside range



EVENT ICONS

BATTERIA GUASTA	GUASTO SONDA	TIME-OUT DEFROST	ALTA PRESSIONE
ALTA TEMPERATURA	ALTA TEMP PORTA APERTA	ALTA TEMP GUASTO RETE	BASSA TEMPERATURA
ALTA CONDENSAZIONE	BASSA EVAPORAZIONE	GUASTO SWITCH-PORTA	ASSENZA COM LOGICHE
GUASTO RETE	GUASTO UNITA' RIDONDATA	ALTA TEMP SCHEDA	MICRO SD GUASTA O ASSENTE
GUASTO CARICHI	GUASTO RELE' U1	GUASTO RELE' U2	GUASTO RELE' Ux

Option of configuring an e-mail to be sent automatically in the event of an alarm.
In this case, the ULT freezer must be equipped with one of the internet connection modules (refer to the list of accessories).



The ULT freezer has a smart control system that maintains the set temperature even if the sensors malfunction



Built-in graphic register

Graphic registration incorporated in the ACP7 controller with sampling of the following parameters every 30 seconds:

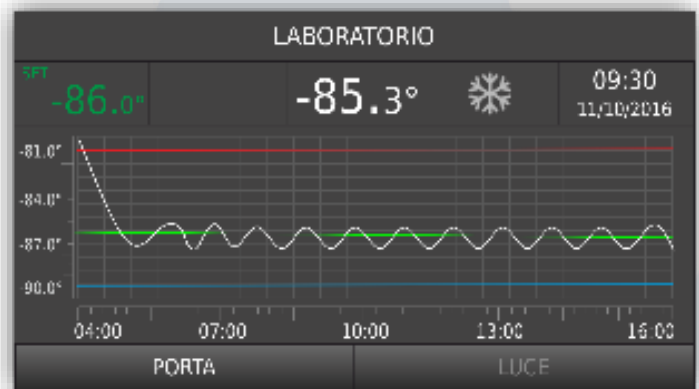
1. Internal compartment temperature
2. Evaporator temperature
3. Condenser temperature
4. Set-point
5. Set temperature limits (high/low)

The parameters can be shown on the screen according to the operator's needs.

There are two visualisation modes:

-REAL TIME, showing the internal compartment temperature, the set-point and the temperature limits

-LOG, showing all five parameters over a time range defined by the operator



The operator can select a maximum period of 6 hours, using the ZOOM IN function to focus on a shorter period, and then ZOOM OUT to return to the max period.

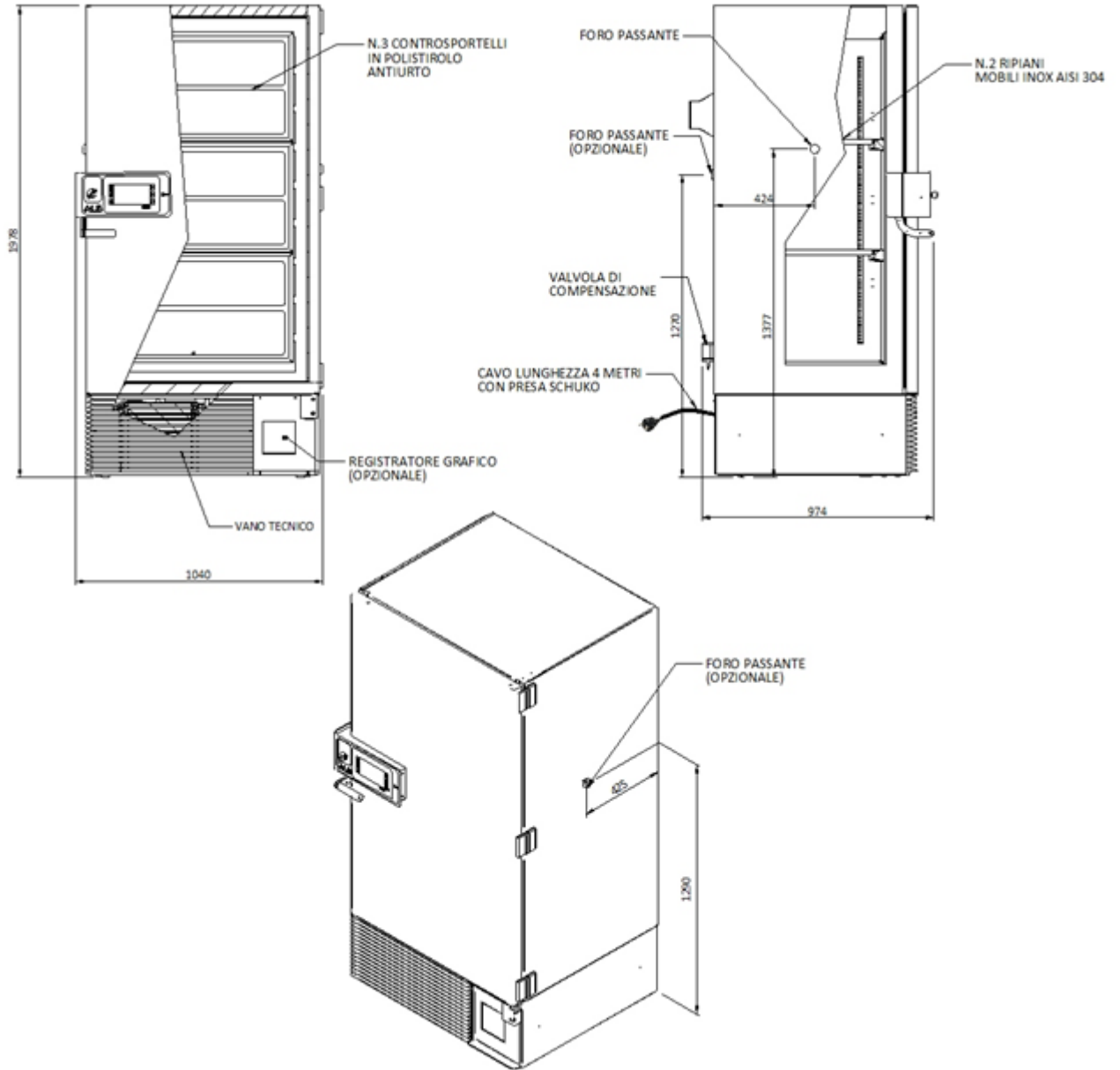


Technical Data

<i>Brand</i>		
<i>Model</i>		NEXUS 340 V-4-STD
<i>Commercial code</i>		14088
<i>External dimensions</i>	Mm	791(W) x 1026(D) x 1976(H)
<i>Internal dimensions</i>	Mm	450(W) x 530(D) x 1350(H)
<i>Volume</i>	Lt	322
<i>Number racks (max) – optional</i>	Nr	9
<i>Number boxes (max) – optional</i>	Nr	252 (H=50mm)
<i>Number vials (max) – optional</i>	Nr	25.200 (1ml)
<i>Weight</i>	Kg	214
<i>Inner doors</i>	Nr	3
<i>shelves</i>	Nr	3, 2 height-adjustable
<i>Max load shelf</i>	Kg	40
<i>Range of temperature</i>	°C	- 40 /- 86
<i>Working temperature</i>	°C	- 80
<i>Voltage suply</i>	V / Hz	230 V – 50 Hz
<i>Noise level*</i>	Db(A)	< 55
<i>Max absorption current</i>	A	7
<i>Max power consumption</i>	KW	1,61
<i>Refrigerant gas high stage</i>	-	R452A
<i>Refrigerant gas low stage</i>	-	Mix R23 + R290 + R170
	-	USB
<i>Plug</i>	-	Schuko
<u>Conditions of use</u>		
<i>Temperature</i>	°C	+ 10 ~ + 32
<i>Relative humidity</i>	%	30 ~ 80 (without condensation)
<u>package</u>		Cardboard + platform
<i>Package dimensions</i>	Mm	810(W) x 1000(D) x 2120(H)
<i>Package weight</i>	Kg	242

*The noise level is measured at 1 mt from the front of the equipment, at a height of 1,6 mt and in a not reverbering opened area; according to standard EN ISO 11201.

Lay - Out



Certifications

The freezer has **CE marking** and has been designed in accordance with the following Directives and regulations:

- Machinery Directive **2006/42/EC**
- Low voltage Directive **2014/35/EU**
- Electromagnetic Compatibility Directive **2014/30/EU**
- **EN 61010-1** Electrical Safety
- **2011/65/EU** ROHSS II

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