



**LABORATORY PRODUCTS
CATALOGUE**

2023

About us

BOLARUS S.A. is a manufacturer of professional refrigeration and low-temperature equipment, it has been operating on the market continuously since 1962. It is one of the largest and fastest growing companies in this industry in Poland. Currently, the company supplies devices to customers around the world.

The company offers its unique cooling solutions for the specialized medical and laboratory market, as well as stores, confectionery and bakery industries, HoReCa customers and the maritime business.

The main branches of production are cabinets (including low-temperature devices), tables, counters, multidecks and display devices. The company's domain is dedicated OEM products and specialized devices.

Clients of Bolarus S.A. are public institutions such as hospitals and research laboratories, retail chains, global brands. It is the result of over sixty years of experience in refrigeration and constant commitment to providing the market with high-quality devices and innovative solutions.

In recent years, the company has focused on technological development that has enabled the design of new product lines for laboratories, research stations and hospitals. These are devices dedicated to the storage of drugs, plasma, microbiological samples, vaccines and blood. ●





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Our history



1962

Beginning

Our history began in 1962, when Przedsiębiorstwo Remontowo-Montażowe Handlu Wewnętrznego in Kraków, established our branch in Bochnia.

Diversification

Our branch has been transformed into a separate enterprise which task was to manufacture refrigeration equipment for the needs of trade and gastronomy.

1965

1974

Modernization and extension

Due to the modernization and expansion, we have increased our production capacity of refrigeration equipment to the level of several thousand pieces annually.

Transformation

We have been transformed into a sole-shareholder company of the State Treasury.

1992

2002

ISO 9001

We have obtained the Quality Management System Certificate according to the ISO 9001 standard.

Takeover of a company

Our shares have been bought by "WICA" company from Wrocław. Currently, WICA holds over 89% shares of the company. The rest of the shares are owned by employees of our company

2003

2006

Expansion

We have put into service our new warehouse of finished products.

ISO 13485

We have obtained the Quality Management System Certificate according to the ISO standard for medical devices.

2011

2012

ERP System

We have implemented an integrated ERP class management system.

2014

Innovation

We have started the production of refrigeration units equipped with innovative technology. TiO2 makes the food stored in our products maintain their natural aromas and flavors. At the same time TiO2 delay the aging process.

2017

ERP System

As one of the few, we receives grant from the Intelligent Development Operational Program, which we allocated, among others for the development of innovative technological solutions, a modern machine park and the construction of a new production hall.

2018

A new production hall

We have put into service a new production hall with an area od 3 000 m².

2020

Expanding the offer of laboratory equipment

2022

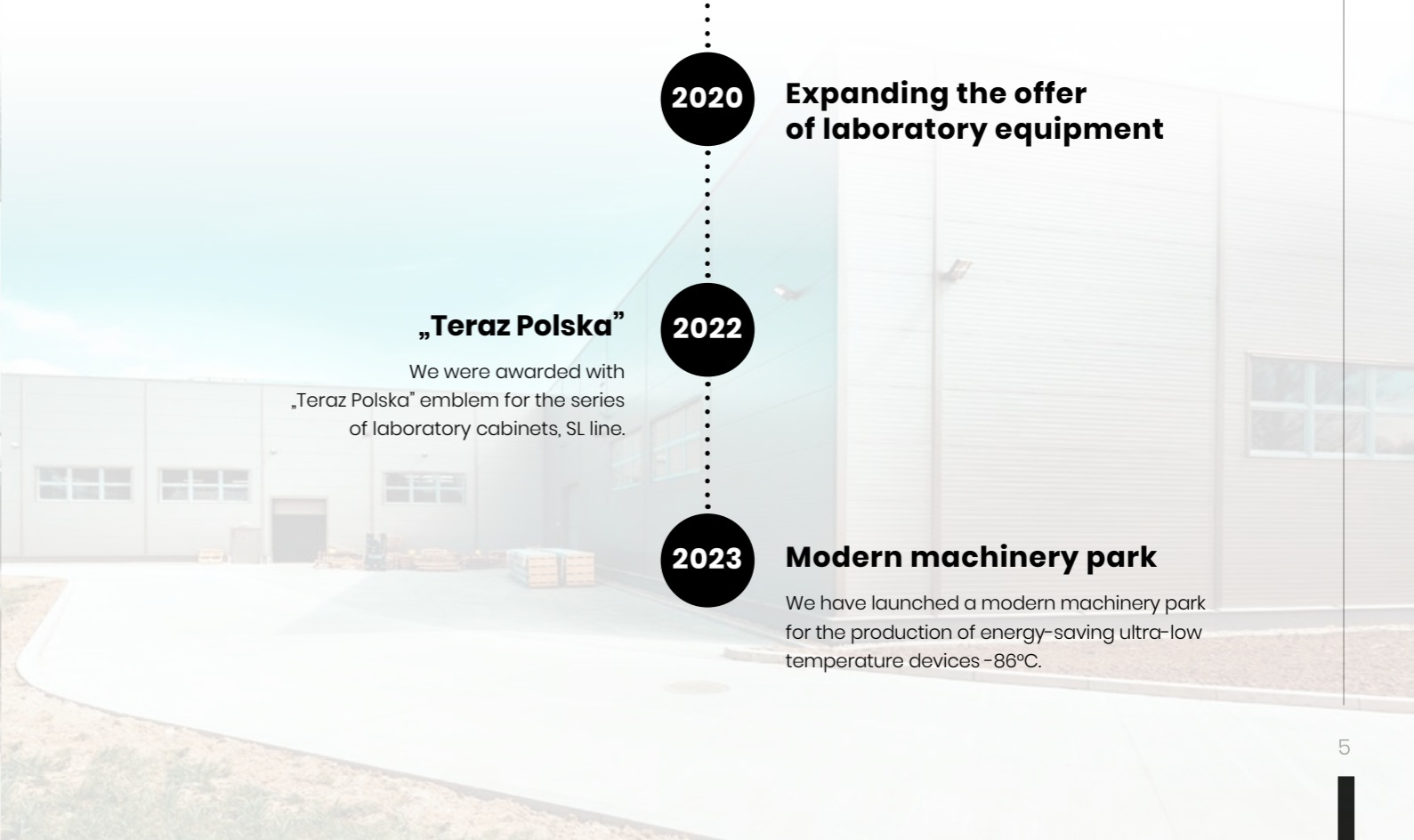
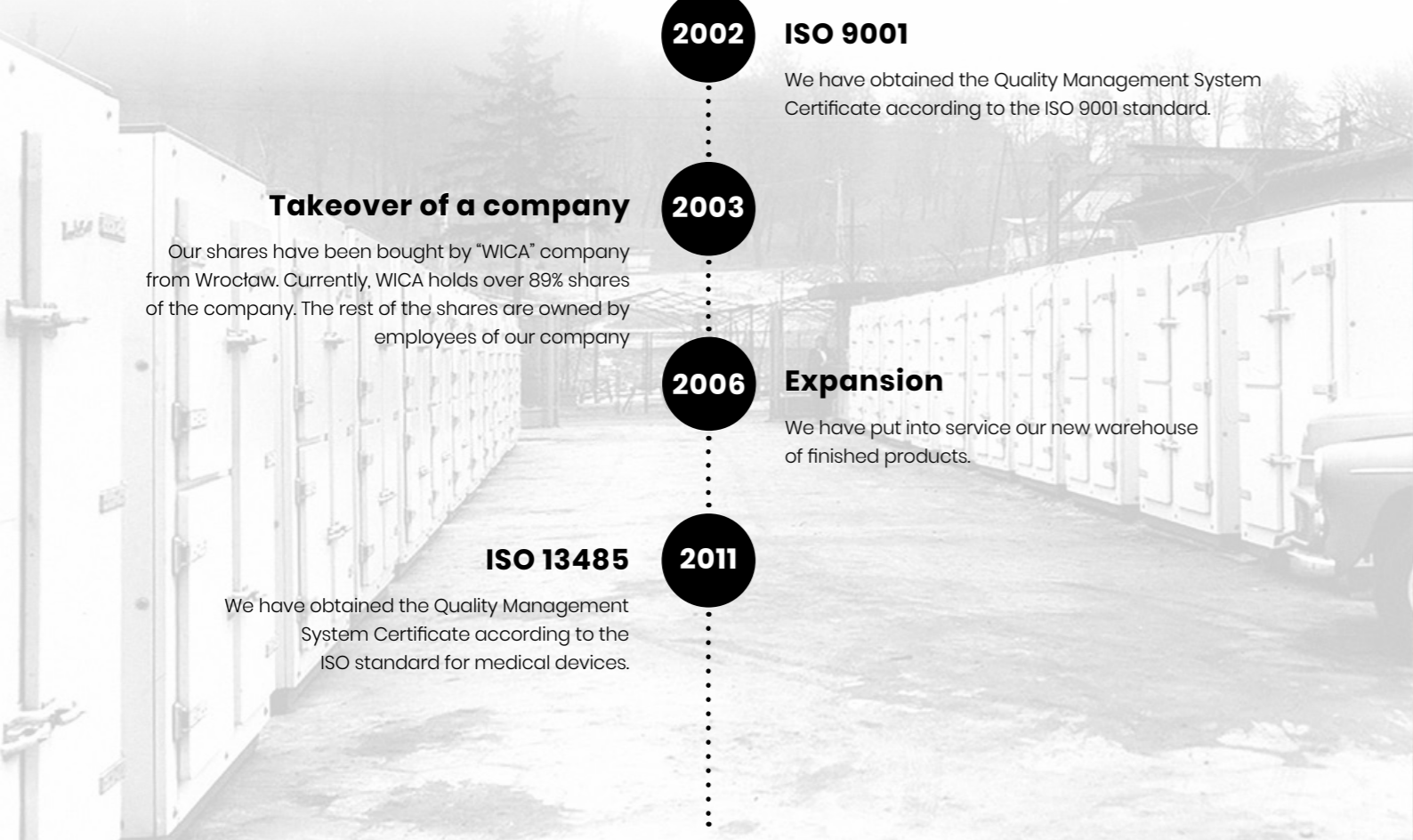
„Teraz Polska”

We were awarded with „Teraz Polska” emblem for the series of laboratory cabinets, SL line.

2023

Modern machinery park

We have launched a modern machinery park for the production of energy-saving ultra-low temperature devices -86°C.



Quality and reliability

We are the leaders in the refrigeration field. Our policy of manufacturing complete range from pharmaceutical devices to ultra-freezers enables us to optimally coordinate all processes of the production of our refrigerators and freezers, with the quality control at every stage. We make products that are proven to fulfil the most stringent requirements. Our refrigerators and freezers are synonym of reliability and safety for hospitals, clinics, laboratories, research centers, either in Europe or other continents.

Our laboratory products meet the requirements of the **pharmaceutical law** and the procedures of Good Laboratory Practice. We have an integrated quality management system in accordance with the requirements of the following standards: **ISO 9001:2015** Quality management systems and **ISO 13485:2016** Medical devices - Quality management systems - Requirements for the purposes of legal regulations. The implemented systems confirm the company's ability to provide laboratory products and related services so that they strictly meet safety standards, applicable legal requirements and standards, as well as meet customer expectations.



Laboratory cabinets in the SL series with the prestigious „Teraz Polska” label

The SL series cabinets are products with a high level of specialisation. They can be used – depending on the model and its characteristic temperature range – for the storage of, for example:

- BLOOD, PLASMA AND BLOOD DERIVED MATERIALS**
- DRUGS AND REAGENTS**
- VACCINES**
- MICROORGANISMS**
cells, yeasts, bacteria, viruses
- HUMAN AND ANIMAL TISSUES**
enzymes, skin cells, organs, embryos
- INDUSTRIAL PRODUCTS**
industrial equipment, electronic components
- PLANT TISSUES**
roots, seeds, pulverised material

The series is comprehensive, both in terms of temperature ranges in which individual SL series models operate and in terms of size. The equipment in the series offers many solutions to ensure the comfort of use and, above all, the safety of the materials stored in it. Its undeniable advantage is its timeless design, distinguishing it from other laboratory equipment on the market.

Undeniable proof of the high level of workmanship of the SL series cabinets is the „Teraz Polska” label they have been awarded. It also testifies to our customers that they are receiving a product with a confirmed national origin.



Controllers

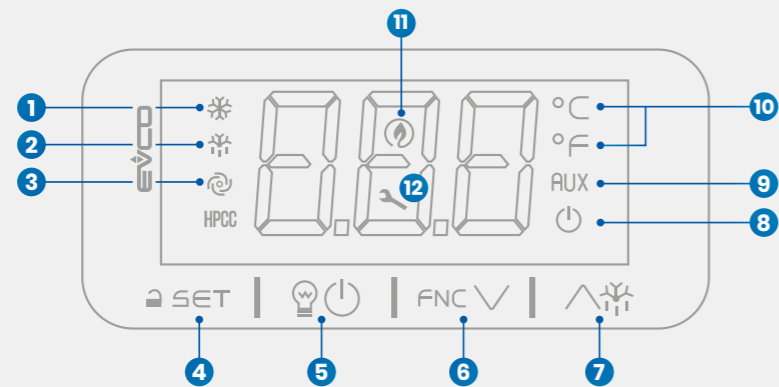
EV3

EV3 is a controller for optimized and energy-saving management of refrigeration equipment. Compact and convenient panel with dimensions of 74 x 32 mm, 4 capacitive touch buttons, IP65.

The controller can be connected to Bluetooth BLE 4.0 interfaces or Wi-Fi interfaces, the connectivity of which enables interaction with the device from mobile devices via Android and iOS applications respectively or from the Internet via a cloud platform.



MAIN SCREEN MENU



- 1 Compressor
- 2 Defrost
- 3 HACCP
- 4 SET, keypad lock
- 5 ON/ STAND-BY, escape, auxiliary load
- 6 DOWN, additional functions
- 7 UP, defrost
- 8 ON / stand-by
- 9 Auxiliary load
- 10 Temperature unit of measurement
- 11 Energy saving
- 12 Compressor service

HMI TOUCH 7

The HMI TOUCH 7 controller is used in all low-temperature devices. It has all the necessary functions to ensure safe storage of your samples. A large, readable 7-inch screen and a simple menu make the device easy to use.

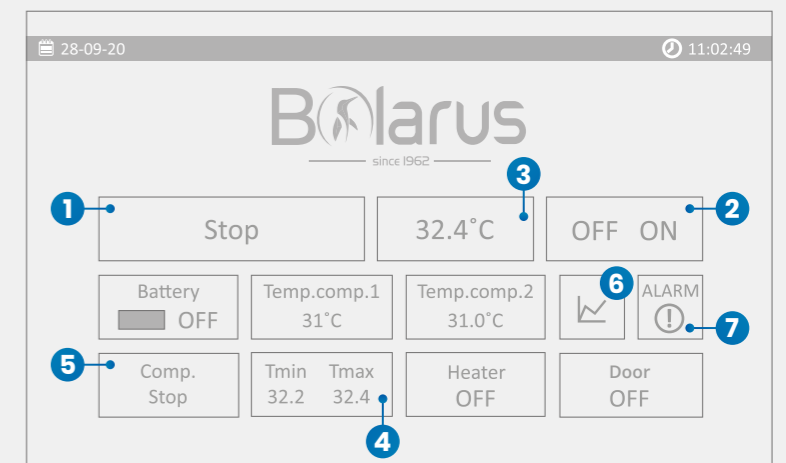
- 7 inch display (193mm x 125mm x 16mm)
- Touch panel: multitouch
- Supply voltage: 24 V AC / DC +/- 10%
- Temperature control - 0.1°C
- Recorded temperature chart
- Chamber sensor
- Compressor sensor
- Evaporator sensor
- Reminder to clean the condenser
- RS485 port
- Battery backup of the controller
- USB port
- RJ-45 port

ALARMS

- Low / high temperature
- Opening the door
- Dirty condenser
- Faulty sensors
- Compressor damage
- Power failure
- Low battery

MAIN SCREEN MENU

- 1 Device status: Run or Stop
- 2 Turn on / off the device
- 3 Current chamber temperature - SETPOINT adjustment
- 4 Temperature min. max. in last cycles
- 5 Compressors work
- 6 Chart preview
- 7 Alarm preview



Order the IQ OQ PQ service at Bolarus!

Service is available as an option for all types of equipment (refrigerating, freezing, low-temperature).

As part of the IQ, OQ, PQ qualification procedure, we take qualification measurements at the customer's premises using measuring equipment in the temperature range from -90 to +20°C.



IQ Installation qualification
Documented verification and confirmation that the installed or modified equipment or systems comply with the approved design, manufacturer's recommendations or user requirements



OQ Operational qualification
Documented verification and confirmation that the installed or modified equipment and systems operate correctly over the entire range of intended operating conditions



PQ Performance Qualification
Documented verification and confirmation that auxiliary equipment and systems, when combined into a functional unit, can operate efficiently and reproducibly in accordance with the approved process method and specifications. Testing the performance of the device under full load and in emergency conditions

Together with the qualification, we offer a **temperature mapping** service. Temperature measurements are taken for 2, 24 or 72 hours, depending on customer needs.

Bundled services available:

- 1 IQ + OQ**
Temperature mapping for 2 hours **FREE**
- 2 IQ + OQ + PQ**
Temperature mapping for 2 hours **FREE**

Following the testing, the customer receives:

- IQ OQ PQ qualification report
- a report on temperature distribution mapping in the device
- a certificate of calibration of measuring equipment
- data in CSV format for own verification

The laboratory equipment qualification services offered are in accordance with the standards of PN-EN IEC 60068-3-5 and the Regulation of the Minister of Health on the Requirements of Good Manufacturing Practice (Journal of Laws „Dz.U.“ of 2020, item 1868).

Wireless temperature recorder with an external probe

Ensure added safety for your products stored in refrigerators!

A standalone external temperature recorder is the ideal solution for storing products sensitive to sudden temperature changes (e.g. vaccines, medicines).

An additional recorder not only protects preparations from loss but also protects the health and lives of those to whom they will be administered.

The system makes it possible to define lower and upper limits of temperature and sends either an SMS or email when these are exceeded, it also warns if the sensor is disconnected (loss of signal) and enables automatic and manual generation of reports. Each emergency event is recorded in the history and requires confirmation by an authorised user.

The set includes:

- 1 Temperature recorder**
The recorders measure the temperature and wirelessly transmit the data to a GSM base station and then to the cloud platform. They are fitted with a battery that makes them maintenance-free regardless of electricity supply.
- 2 SIM card, 100 text messages, licence fee**
Registration of the sensor on the platform (renewable) with SIM card – for a period of 2 years. It makes it possible to transmit data and generate alarms and reports. The package includes 100 emergency text messages (additional SMS can be purchased if needed). Sensor calibration certificate.



Probe
The sensor is integrated with 1 or 2 probes inside the compartment of the refrigerator

Low current consumption
Battery life of at least 2 years.

Access for everyone
Possibility of making platform access and emergency notifications available to any number of users.

High storage capacity
The recorder can store up to 40,000 temperature measurements in its memory. If the GSM connection is lost, the data will be transmitted as soon as the connection is restored.

Easy to configure
All that is required to configure the recorder is a smartphone with a free mobile app.

Works without internet and network access
The device is independent of power supply and internet access. It uses the GSM network.

01

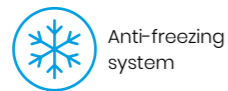
Line

SLC +2...+10

LABORATORY REFRIGERATORS RANGE +2°C TO 10°C

SLC 55	14
SLC 55 GLASS	15
SLC 100	16
SLC 100 GLASS	17
SLC 300	18
SLC 300 GLASS	19
SLC 500	20
SLC 500 GLASS	21
SLC 700	22
SLC 700 GLASS	23
SLC 1400	24
SLC 1400 GLASS	25

cabinet
SLC 55
+2... +10°C



STANDARD EQUIPMENT:

- RAL 9016 coated external body
- Interior made of AISI 304 acid-resistant steel
- 50 mm insulation
- Eco-friendly refrigerant
- Solid door with replaceable seal
- Mechanical door lock
- Automatic door closing system
- Right-hand door
- Electronic temperature controller with digital display allowing to change the temperature setting every 0.1K
- High and low temperature visual and sound alarm
- Open door alarm
- Dirty condenser coil alarm
- Broken temperature sensor alarm
- External alarm output - potential-free contact
- Auto-defrost and condensation evaporating
- Antifreezing system
- Shelf guides / horizontal supports
- 2 coated wire shelves
- Adjustable shelf position
- Check hole
- Adjustable legs

OPTIONAL EQUIPMENT:

- Alarm backup battery
- Power failure alarm
- Temperature recorder
- Change of the standard temperature range
- Additional check hole in the wall
- Glycol container
- 2 castors with brake and 2 castors without brake
- Additional shelf guides / horizontal supports
- Additional shelves (coated wire, inox wire)
- Left-hand door
- LED lighting
- External body made of AISI 304 acid-resistant steel
- External standalone temperature monitoring set with a SIM card

ADDITIONAL SERVICES:



Installation qualification

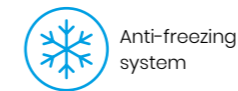


Operational qualification



Performance Qualification

cabinet
SLC 55 GLASS
+2... +10°C



STANDARD EQUIPMENT:

- RAL 9016 coated external body
- Interior made of AISI 304 acid-resistant steel
- 50 mm insulation
- Eco-friendly refrigerant
- Glass door with replaceable seal
- Mechanical door lock
- Automatic door closing system
- Right-hand door
- Electronic temperature controller with digital display allowing to change the temperature setting every 0.1K
- High and low temperature sound and visual alarm
- Open door alarm
- Dirty condenser coil alarm
- Broken temperature sensor alarm
- External alarm output - potential-free contact
- Auto-defrost and condensation evaporating
- Antifreezing system
- Shelf guides / horizontal supports
- 2 coated wire shelves
- Adjustable shelf position
- Check hole
- Adjustable legs
- LED lighting

OPTIONAL EQUIPMENT:

- Alarm backup battery
- Power failure alarm
- Temperature recorder
- Change of the standard temperature range
- Additional check hole in the wall
- Glycol container
- 2 castors with brake and 2 castors without brake
- Additional shelf guides / horizontal supports
- Additional shelves (coated wire, inox wire)
- Left-hand door
- External body made of AISI 304 acid-resistant steel
- External standalone temperature monitoring set with a SIM card

ADDITIONAL SERVICES:



Installation qualification



Operational qualification



Performance Qualification

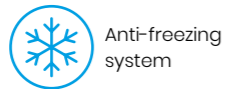
cabinet

SLC 100

+2... +10°C



Eco-friendly refrigerant



Anti-freezing system



Check hole

STANDARD EQUIPMENT:

- RAL 9016 coated external body
- Interior made of AISI 304 acid-resistant steel
- 70 mm insulation
- Eco-friendly refrigerant
- Solid door with replaceable seal
- Mechanical door lock
- Automatic door closing system
- Right-hand door
- Electronic temperature controller with digital display allowing to change the temperature setting every 0.1K
- High and low temperature visual and sound alarm
- Open door alarm
- Dirty condenser coil alarm
- Broken temperature sensor alarm
- External alarm output - potential-free contact
- Auto-defrost and condensation evaporating
- Antifreezing system
- Shelf guides / horizontal supports
- 2 coated wire shelves
- Adjustable shelf position
- Check hole
- Adjustable legs

OPTIONAL EQUIPMENT:

- Alarm backup battery
- Power failure alarm
- Temperature recorder
- Change of the standard temperature range
- Additional check hole in the wall
- Glycol container
- 2 castors with brake and 2 castors without brake
- Additional shelf guides / horizontal supports
- Additional shelves (coated wire, inox wire)
- Left-hand door
- LED lighting
- External body made of AISI 304 acid-resistant steel
- External standalone temperature monitoring set with a SIM card

+ ADDITIONAL SERVICES:



Installation qualification



Operational qualification



Performance Qualification

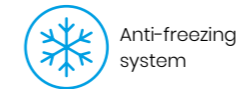
cabinet

SLC 100 GLASS

+2... +10°C



Eco-friendly refrigerant



Anti-freezing system



Check hole



LED lighting

STANDARD EQUIPMENT:

- RAL 9016 coated external body
- Interior made of AISI 304 acid-resistant steel
- 70 mm insulation
- Eco-friendly refrigerant
- Glass door with replaceable seal
- Mechanical door lock
- Automatic door closing system
- Right-hand door
- Electronic temperature controller with digital display allowing to change the temperature setting every 0.1K
- High and low temperature visual and sound alarm
- Open door alarm
- Dirty condenser coil alarm
- Broken temperature sensor alarm
- External alarm output - potential-free contact
- Auto-defrost and condensation evaporating
- Antifreezing system
- Shelf guides / horizontal supports
- 2 coated wire shelves
- Adjustable shelf position
- Check hole
- Adjustable legs
- LED lighting

OPTIONAL EQUIPMENT:

- Alarm backup battery
- Power failure alarm
- Temperature recorder
- Change of the standard temperature range
- Additional check hole in the wall
- Glycol container
- 2 castors with brake and 2 castors without brake
- Additional shelf guides / horizontal supports
- Additional shelves (coated wire, inox wire)
- Left-hand door
- External body made of AISI 304 acid-resistant steel
- External standalone temperature monitoring set with a SIM card

+ ADDITIONAL SERVICES:



Installation qualification



Operational qualification



Performance Qualification

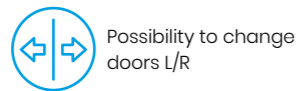
cabinet

SLC 300

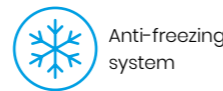
+2... +10°C



Eco-friendly refrigerant



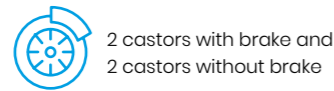
Possibility to change doors L/R



Anti-freezing system



Check hole



2 castors with brake and 2 castors without brake



Additional 2 levelling legs

STANDARD EQUIPMENT:

- RAL 9016 coated external body
- Interior made of AISI 304 acid-resistant steel
- 70 mm insulation
- Eco-friendly refrigerant
- Solid door with replaceable seal
- Mechanical door lock
- Automatic door closing system
- Possibility to change doors L/R
- Electronic temperature controller with digital display allowing to change the temperature setting every 0.1K
- High and low temperature visual and sound alarm
- Open door alarm
- Dirty condenser coil alarm
- Broken temperature sensor alarm
- External alarm output - potential-free contact
- Auto-defrost and condensation evaporating
- Antifreezing system
- Shelf guides / horizontal supports
- 4 coated wire shelves
- Adjustable shelf position
- Check hole
- 2 castors with brake and 2 castors without brake
- 2 additional levelling legs
- Handles on the back of the device for easy transport

OPTIONAL EQUIPMENT:

- Alarm backup battery
- Power failure alarm
- Temperature recorder
- Change of the standard temperature range
- Additional check hole in the wall
- Glycol container
- Adjustable PVC legs
- 75 mm drawer with dividers
- 150 mm drawer
- Additional shelf guides / horizontal supports
- Additional shelves (coated wire, inox wire)
- LED lighting
- External body made of AISI 304 acid-resistant steel
- External standalone temperature monitoring set with a SIM card

ADDITIONAL SERVICES:

Installation qualification



Operational qualification



Performance Qualification

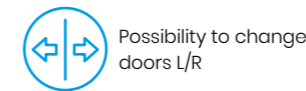
cabinet

SLC 300 GLASS

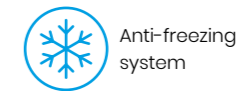
+2... +10°C



Eco-friendly refrigerant



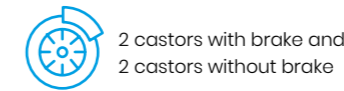
Possibility to change doors L/R



Anti-freezing system



Check hole



2 castors with brake and 2 castors without brake



Additional 2 levelling legs



LED lighting

STANDARD EQUIPMENT:

- RAL 9016 coated external body
- Interior made of AISI 304 acid-resistant steel
- 70 mm insulation
- Eco-friendly refrigerant
- Glass door with replaceable seal
- Mechanical door lock
- Automatic door closing system
- Possibility to change doors L/R
- Electronic temperature controller with digital display allowing to change the temperature setting every 0.1K
- High and low temperature visual and sound alarm
- Open door alarm
- Dirty condenser coil alarm
- Broken temperature sensor alarm
- External alarm output - potential-free contact
- Auto-defrost and condensation evaporating
- Antifreezing system
- Shelf guides / horizontal supports
- 4 coated wire shelves
- Adjustable shelf position
- Check hole
- 2 castors with brake and 2 castors without brake
- 2 additional levelling legs
- Handles on the back of the device for easy transport
- LED lighting

OPTIONAL EQUIPMENT:

- Alarm backup battery
- Power failure alarm
- Temperature recorder
- Change of the standard temperature range
- Additional check hole in the wall
- Glycol container
- Adjustable PVC legs
- 75 mm drawer with dividers
- 150 mm drawer
- Additional shelf guides / horizontal supports
- Additional shelves (coated wire, inox wire)
- External body made of AISI 304 acid-resistant steel
- External standalone temperature monitoring set with a SIM card

ADDITIONAL SERVICES:

Installation qualification



Operational qualification



Performance Qualification

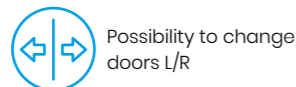
cabinet

SLC 500

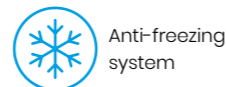
+2... +10°C



Eco-friendly refrigerant



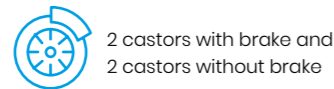
Possibility to change doors L/R



Anti-freezing system



Check hole



2 castors with brake and 2 castors without brake



Additional 2 levelling legs

STANDARD EQUIPMENT:

- RAL 9016 coated external body
- Interior made of AISI 304 acid-resistant steel
- 70 mm insulation
- Eco-friendly refrigerant
- Solid door with replaceable seal
- Mechanical door lock
- Automatic door closing system
- Possibility to change doors L/R
- Electronic temperature controller with digital display allowing to change the temperature setting every 0.1K
- High and low temperature visual and sound alarm
- Open door alarm
- Dirty condenser coil alarm
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- Shelf guides / horizontal supports
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- 2 additional levelling legs
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OPTIONAL EQUIPMENT:

- Alarm backup battery
- Power failure alarm
- Temperature recorder
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- Additional check hole in the wall
- Glycol container
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- 75 mm drawer with dividers
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- Additional shelf guides / horizontal supports
- Additional shelves (coated wire, inox wire)
- LED lighting
- External body made of AISI 304 acid-resistant steel
- External standalone temperature monitoring set with a SIM card

ADDITIONAL SERVICES:



Installation qualification



Operational qualification



Performance Qualification

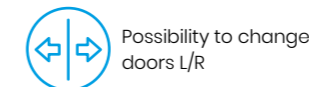
cabinet

SLC 500 GLASS

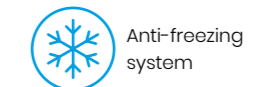
+2... +10°C



Eco-friendly refrigerant



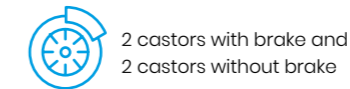
Possibility to change doors L/R



Anti-freezing system



Check hole



2 castors with brake and 2 castors without brake



Additional 2 levelling legs



LED lighting

STANDARD EQUIPMENT:

- RAL 9016 coated external body
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- External standalone temperature monitoring set with a SIM card

ADDITIONAL SERVICES:



Installation qualification



Operational qualification



Performance Qualification

cabinet

SLC 700

+2... +10°C



- Eco-friendly refrigerant
- Possibility to change doors L/R
- Anti-freezing system
- Check hole
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- Additional 2 levelling legs

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- Broken temperature sensor alarm
- External alarm output - potential-free contact
- Auto-defrost and condensation evaporating
- Antifreezing system
- Shelf guides / horizontal supports
- 4 coated wire shelves
- Adjustable shelf position
- Check hole
- 2 castors with brake and 2 castors without brake
- 2 additional levelling legs
- Handles on the back of the device for easy transport

OPTIONAL EQUIPMENT:

- Alarm backup battery
- Power failure alarm
- Temperature recorder
- Change of the standard temperature range
- Additional check hole in the wall
- Glycol container
- Adjustable PVC legs
- 75 mm drawer with dividers
- 150 mm drawer
- Additional shelf guides / horizontal supports
- Additional shelves (coated wire, inox wire)
- LED lighting
- External body made of AISI 304 acid-resistant steel
- External standalone temperature monitoring set with a SIM card

ADDITIONAL SERVICES:

- Installation qualification
- Operational qualification
- Performance Qualification

cabinet

SLC 700 GLASS

+2... +10°C



- Eco-friendly refrigerant
- Possibility to change doors L/R
- Anti-freezing system
- Check hole
- 2 castors with brake and 2 castors without brake
- Additional 2 levelling legs
- LED lighting

STANDARD EQUIPMENT:

- RAL 9016 coated external body
- Interior made of AISI 304 acid-resistant steel
- 70 mm insulation
- Eco-friendly refrigerant
- Glass door with replaceable seal
- Mechanical door lock
- Automatic door closing system
- Possibility to change doors L/R
- Electronic temperature controller with digital display allowing to change the temperature setting every 0.1K
- High and low temperature visual and sound alarm
- Open door alarm
- Dirty condenser coil alarm
- Broken temperature sensor alarm
- External alarm output - potential-free contact
- Auto-defrost and condensation evaporating
- Antifreezing system
- Shelf guides / horizontal supports
- 4 coated wire shelves
- Adjustable shelf position
- Check hole
- 2 castors with brake and 2 castors without brake
- 2 additional levelling legs
- Handles on the back of the device for easy transport
- LED lighting

OPTIONAL EQUIPMENT:

- Alarm backup battery
- Power failure alarm
- Temperature recorder
- Change of the standard temperature range
- Additional check hole in the wall
- Glycol container
- Adjustable PVC legs
- 75 mm drawer with dividers
- 150 mm drawer
- Additional shelf guides / horizontal supports
- Additional shelves (coated wire, inox wire)
- External body made of AISI 304 acid-resistant steel
- External standalone temperature monitoring set with a SIM card

ADDITIONAL SERVICES:

- Installation qualification
- Operational qualification
- Performance Qualification

cabinet
SLC 1400
+2... +10°C



- Eco-friendly refrigerant
- Anti-freezing system
- Check hole
- 3 kota z hamulcem oraz 2 kota bez hamulca
- Additional 2 levelling legs

STANDARD EQUIPMENT:

- RAL 9016 coated external body
- Interior made of AISI 304 acid-resistant steel
- 70 mm insulation
- Eco-friendly refrigerant
- Solid door with replaceable seal
- Mechanical door lock
- Automatic door closing system
- Possibility to change doors L/R
- Electronic temperature controller with digital display allowing to change the temperature setting every 0.1K
- High and low temperature visual and sound alarm
- Open door alarm
- Dirty condenser coil alarm
- Broken temperature sensor alarm
- External alarm output - potential-free contact
- Auto-defrost and condensation evaporating
- Antifreezing system
- Shelf guides / horizontal supports
- 8 coated wire shelves
- Adjustable shelf position
- Check hole
- 3 castors with brake and 2 castors without brake
- 2 additional levelling legs
- Handles on the back of the device for easy transport

OPTIONAL EQUIPMENT:

- Alarm backup battery
- Power failure alarm
- Temperature recorder
- Change of the standard temperature range
- Additional check hole in the wall
- Glycol container
- Adjustable PVC legs
- 75 mm drawer with dividers
- 150 mm drawer
- Additional shelf guides / horizontal supports
- Additional shelves (coated wire, inox wire)
- LED lighting
- External body made of AISI 304 acid-resistant steel
- External standalone temperature monitoring set with a SIM card

ADDITIONAL SERVICES:

- Installation qualification
- Operational qualification
- Performance Qualification

cabinet
SLC 1400 GLASS
+2... +10°C



- Eco-friendly refrigerant
- Anti-freezing system
- Check hole
- 3 kota z hamulcem oraz 2 kota bez hamulca
- Additional 2 levelling legs
- LED lighting

STANDARD EQUIPMENT:

- RAL 9016 coated external body
- Interior made of AISI 304 acid-resistant steel
- 70 mm insulation
- Eco-friendly refrigerant
- Glass door with replaceable seal
- Mechanical door lock
- Automatic door closing system
- Possibility to change doors L/R
- Electronic temperature controller with digital display allowing to change the temperature setting every 0.1K
- High and low temperature visual and sound alarm
- Open door alarm
- Dirty condenser coil alarm
- Broken temperature sensor alarm
- External alarm output - potential-free contact
- Auto-defrost and condensation evaporating
- Antifreezing system
- Shelf guides / horizontal supports
- 8 coated wire shelves
- Adjustable shelf position
- Check hole
- 3 castors with brake and 2 castors without brake
- 2 additional levelling legs
- Handles on the back of the device for easy transport
- LED lighting

OPTIONAL EQUIPMENT:

- Alarm backup battery
- Power failure alarm
- Temperature recorder
- Change of the standard temperature range
- Additional check hole in the wall
- Glycol container
- Adjustable PVC legs
- 75 mm drawer with dividers
- 150 mm drawer
- Additional shelf guides / horizontal supports
- Additional shelves (coated wire, inox wire)
- LED lighting
- External body made of AISI 304 acid-resistant steel
- External standalone temperature monitoring set with a SIM card

ADDITIONAL SERVICES:

- Installation qualification
- Operational qualification
- Performance Qualification

02

Line

SLC / SLC +2...+10/ +2...+10

SLC / SLM +2...+10/-10...-30

LABORATORY REFRIGERATORS-FREEZERS RANGE, DUAL TEMPERATURE +2°C TO +10°C AND -10° TO -30°C

SLC / SLC 300	28
SLC / SLM 700	29
SLC / SLM 300	30
SLC / SLM 300 GLASS	31
SLC / SLM 700	32
SLC / SLM 700 GLASS	33

cooling-cooling cabinet

SLC / SLC 300

+2...+10 / +2...+10



- R 290 Eco-friendly refrigerant
- Anti-freezing system
- Check hole
- 2 castors with brake and 2 castors without brake
- Additional 2 levelling legs

STANDARD EQUIPMENT:

- RAL 9016 coated external body
- Interior made of AISI 304 acid-resistant steel
- 60 mm insulation
- Eco-friendly refrigerant
- Solid door with replaceable seal
- Mechanical door lock
- Automatic door closing system
- Right-hand door
- Electronic temperature controller with digital display allowing to change the temperature setting every 0.1K
- High and low temperature visual and sound alarm
- Open door alarm
- Dirty condenser coil alarm
- Broken temperature sensor alarm
- External alarm output - potential-free contact
- Auto-defrost and condensation evaporating
- Antifreezing system
- Shelf guides / horizontal supports
- 4 coated wire shelves
- Adjustable shelf position
- Check hole
- 2 castors with brake and 2 castors without brake
- 2 additional levelling legs
- Handles on the back of the device for easy transport

OPTIONAL EQUIPMENT:

- Alarm backup battery
- Power failure alarm
- Temperature recorder
- Change of the standard temperature range
- Additional check hole in the wall
- Glycol container
- Adjustable PVC legs
- 75 mm drawer with dividers
- 150 mm drawer
- Additional shelf guides / horizontal supports
- Additional shelves (coated wire, inox wire)
- Left-hand door
- LED lighting
- External body made of AISI 304 acid-resistant steel
- External standalone temperature monitoring set with a SIM card

+ ADDITIONAL SERVICES:

- Installation qualification
- Operational qualification
- Performance Qualification

cooling-cooling cabinet

SLC / SLC 700

+2...+10 / +2...+10



- R 290 Eco-friendly refrigerant
- Anti-freezing system
- Check hole
- 2 castors with brake and 2 castors without brake
- Additional 2 levelling legs

STANDARD EQUIPMENT:

- RAL 9016 coated external body
- Interior made of AISI 304 acid-resistant steel
- 60 mm insulation
- Eco-friendly refrigerant
- Solid door with replaceable seal
- Mechanical door lock
- Automatic door closing system
- Right-hand door
- Electronic temperature controller with digital display allowing to change the temperature setting every 0.1K
- High and low temperature visual and sound alarm
- Open door alarm
- Dirty condenser coil alarm
- Broken temperature sensor alarm
- External alarm output - potential-free contact
- Auto-defrost and condensation evaporating
- Antifreezing system
- Shelf guides / horizontal supports
- 4 coated wire shelves
- Adjustable shelf position
- Check hole
- 2 castors with brake and 2 castors without brake
- 2 additional levelling legs
- Handles on the back of the device for easy transport

OPTIONAL EQUIPMENT:

- Alarm backup battery
- Power failure alarm
- Temperature recorder
- Change of the standard temperature range
- Additional check hole in the wall
- Glycol container
- Adjustable PVC legs
- 75 mm drawer with dividers
- 150 mm drawer
- Additional shelf guides / horizontal supports
- Additional shelves (coated wire, inox wire)
- Left-hand door
- LED lighting
- External body made of AISI 304 acid-resistant steel
- External standalone temperature monitoring set with a SIM card

+ ADDITIONAL SERVICES:

- Installation qualification
- Operational qualification
- Performance Qualification

cooling-freezing cabinet

SLC / SLM 300

+2... +10 / -10...-30°C



- Eco-friendly refrigerant
- Anti-freezing system
- Check hole
- 2 castors with brake and 2 castors without brake
- Additional 2 levelling legs

STANDARD EQUIPMENT:

- RAL 9016 coated external body
- Interior made of AISI 304 acid-resistant steel
- 60 mm insulation
- Eco-friendly refrigerant
- Solid door with replaceable seal
- Mechanical door lock
- Automatic door closing system
- Right-hand door
- Electronic temperature controller with digital display allowing to change the temperature setting every 0.1K
- High and low temperature visual and sound alarm
- Open door alarm
- Dirty condenser coil alarm
- Broken temperature sensor alarm
- External alarm output - potential-free contact
- Auto-defrost and condensation evaporating
- Antifreezing system (cooling chamber)
- Shelf guides / horizontal supports
- 4 coated wire shelves
- Adjustable shelf position
- Check hole
- 2 castors with brake and 2 castors without brake
- 2 additional levelling legs
- Handles on the back of the device for easy transport

OPTIONAL EQUIPMENT:

- Alarm backup battery
- Power failure alarm
- Temperature recorder
- Change of the standard temperature range
- Additional check hole in the wall
- Glycol container
- Adjustable PVC legs
- 75 mm drawer with dividers
- 150 mm drawer
- Additional shelf guides / horizontal supports
- Additional shelves (coated wire, inox wire)
- Left-hand door
- LED lighting
- External body made of AISI 304 acid-resistant steel
- External standalone temperature monitoring set with a SIM card

ADDITIONAL SERVICES:

- Installation qualification
- Operational qualification
- Performance Qualification

cooling-freezing cabinet

SLC / SLM 300 GLASS

+2... +10 / -10...-30°C



- Eco-friendly refrigerant
- Anti-freezing system
- Check hole
- 2 castors with brake and 2 castors without brake
- Additional 2 levelling legs
- LED lighting

STANDARD EQUIPMENT:

- RAL 9016 coated external body
- Interior made of AISI 304 acid-resistant steel
- 60 mm insulation
- Eco-friendly refrigerant
- Solid and glass door with replaceable seal
- Mechanical door lock
- Automatic door closing system
- Right-hand door
- Electronic temperature controller with digital display allowing to change the temperature setting every 0.1K
- High and low temperature visual and sound alarm
- Open door alarm
- Dirty condenser coil alarm
- Broken temperature sensor alarm
- External alarm output - potential-free contact
- Auto-defrost and condensation evaporating
- Antifreezing system (cooling chamber)
- Shelf guides / horizontal supports
- 4 coated wire shelves
- Adjustable shelf position
- Check hole
- 2 castors with brake and 2 castors without brake
- 2 additional levelling legs
- Handles on the back of the device for easy transport
- LED lighting (cooling chamber)

OPTIONAL EQUIPMENT:

- Alarm backup battery
- Power failure alarm
- Temperature recorder
- Change of the standard temperature range
- Additional check hole in the wall
- Glycol container
- Adjustable PVC legs
- 75 mm drawer with dividers
- 150 mm drawer
- Additional shelf guides / horizontal supports
- Additional shelves (coated wire, inox wire)
- Left-hand door
- LED lighting (freezing chamber)
- External body made of AISI 304 acid-resistant steel
- External standalone temperature monitoring set with a SIM card

ADDITIONAL SERVICES:

- Installation qualification
- Operational qualification
- Performance Qualification

cooling-freezing cabinet

SLC / SLM 700

+2... +10 / -10...-30°C



- Eco-friendly refrigerant
- Anti-freezing system
- Check hole
- 2 castors with brake and 2 castors without brake
- Additional 2 levelling legs

STANDARD EQUIPMENT:

- RAL 9016 coated external body
- Interior made of AISI 304 acid-resistant steel
- 60 mm insulation
- Eco-friendly refrigerant
- Solid door with replaceable seal
- Mechanical door lock
- Automatic door closing system
- Right-hand door
- Electronic temperature controller with digital display allowing to change the temperature setting every 0.1K
- High and low temperature visual and sound alarm
- Open door alarm
- Dirty condenser coil alarm
- Broken temperature sensor alarm
- External alarm output - potential-free contact
- Auto-defrost and condensation evaporating
- Antifreezing system (cooling chamber)
- Shelf guides / horizontal supports
- 4 coated wire shelves
- Adjustable shelf position
- Check hole
- 2 castors with brake and 2 castors without brake
- 2 additional levelling legs
- Handles on the back of the device for easy transport

OPTIONAL EQUIPMENT:

- Alarm backup battery
- Power failure alarm
- Temperature recorder
- Change of the standard temperature range
- Additional check hole in the wall
- Glycol container
- Adjustable PVC legs
- 75 mm drawer with dividers
- 150 mm drawer
- Additional shelf guides / horizontal supports
- Additional shelves (coated wire, inox wire)
- Left-hand door
- LED lighting
- External body made of AISI 304 acid-resistant steel
- External standalone temperature monitoring set with a SIM card

ADDITIONAL SERVICES:

- Installation qualification
- Operational qualification
- Performance Qualification

cooling-freezing cabinet

SLC / SLM 700 GLASS

+2... +10 / -10...-30°C



- Eco-friendly refrigerant
- Anti-freezing system
- Check hole
- 2 castors with brake and 2 castors without brake
- Additional 2 levelling legs
- LED lighting

STANDARD EQUIPMENT:

- RAL 9016 coated external body
- Interior made of AISI 304 acid-resistant steel
- 60 mm insulation
- Eco-friendly refrigerant
- Solid and glass door with replaceable seal
- Mechanical door lock
- Automatic door closing system
- Right-hand door
- Electronic temperature controller with digital display allowing to change the temperature setting every 0.1K
- High and low temperature visual and sound alarm
- Open door alarm
- Dirty condenser coil alarm
- Broken temperature sensor alarm
- External alarm output - potential-free contact
- Auto-defrost and condensation evaporating
- Antifreezing system (cooling chamber)
- Shelf guides / horizontal supports
- 4 coated wire shelves
- Adjustable shelf position
- Check hole
- 2 castors with brake and 2 castors without brake
- 2 additional levelling legs
- Handles on the back of the device for easy transport
- LED lighting (cooling chamber)

OPTIONAL EQUIPMENT:

- Alarm backup battery
- Power failure alarm
- Temperature recorder
- Change of the standard temperature range
- Additional check hole in the wall
- Glycol container
- Adjustable PVC legs
- 75 mm drawer with dividers
- 150 mm drawer
- Additional shelf guides / horizontal supports
- Additional shelves (coated wire, inox wire)
- Left-hand door
- LED lighting (freezing chamber)
- External body made of AISI 304 acid-resistant steel
- External standalone temperature monitoring set with a SIM card

ADDITIONAL SERVICES:

- Installation qualification
- Operational qualification
- Performance Qualification

03

Line
SLM -10...-30

LABORATORY FREEZERS RANGE -10°C TO -30°C

SLM 100	36
SLM 300	37
SLM 500	38
SLM 700	39
SLM 1400	40

freezing cabinet

SLM 100

-10...-30°C



Eco-friendly refrigerant



Check hole

STANDARD EQUIPMENT:

- RAL 9016 coated external body
- Interior made of AISI 304 acid-resistant steel
- 70 mm insulation
- Eco-friendly refrigerant
- Solid door with replaceable seal
- Mechanical door lock
- Automatic door closing system
- Right-hand door
- Electronic temperature controller with digital display allowing to change the temperature setting every 0.1K
- High and low temperature visual and sound alarm
- Open door alarm
- Dirty condenser coil alarm
- Broken temperature sensor alarm
- External alarm output - potential-free contact
- Auto-defrost and condensation evaporating
- Shelf guides / horizontal supports
- 2 coated wire shelves
- Adjustable shelf position
- Check hole
- Adjustable legs

OPTIONAL EQUIPMENT:

- Alarm backup battery
- Power failure alarm
- Temperature recorder
- Change of the standard temperature range
- Additional check hole in the wall
- Glycol container
- 2 castors with brake and 2 castors without brake
- Additional shelf guides / horizontal supports
- Additional shelves (coated wire, inox wire)
- Left-hand door
- LED lighting
- External body made of AISI 304 acid-resistant steel
- External standalone temperature monitoring set with a SIM card

ADDITIONAL SERVICES:

Installation qualification



Operational qualification



Performance Qualification

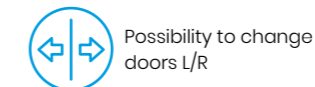
freezing cabinet

SLM 300

-10...-30°C



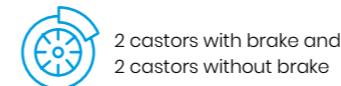
Eco-friendly refrigerant



Possibility to change doors L/R



Check hole



2 castors with brake and 2 castors without brake



Additional 2 levelling legs

STANDARD EQUIPMENT:

- RAL 9016 coated external body
- Interior made of AISI 304 acid-resistant steel
- 70 mm insulation
- Eco-friendly refrigerant
- Solid door with replaceable seal
- Mechanical door lock
- Automatic door closing system
- Possibility to change doors L/R
- Electronic temperature controller with digital display allowing to change the temperature setting every 0.1K
- High and low temperature visual and sound alarm
- Open door alarm
- Dirty condenser coil alarm
- Broken temperature sensor alarm
- External alarm output - potential-free contact
- Auto-defrost and condensation evaporating
- Shelf guides / horizontal supports
- 4 coated wire shelves
- Adjustable shelf position
- Check hole
- 2 castors with brake and 2 castors without brake
- 2 additional adjustable legs
- Handles on the back of the device for easy transport

OPTIONAL EQUIPMENT:

- Alarm backup battery
- Power failure alarm
- Temperature recorder
- Change of the standard temperature range
- Additional check hole in the wall
- Glycol container
- PVC adjustable legs
- 75 mm drawer with dividers
- 150 mm drawer
- Additional shelf guides / horizontal supports
- Additional shelves (coated wire, inox wire)
- LED lighting
- External body made of AISI 304 acid-resistant steel
- External standalone temperature monitoring set with a SIM card

ADDITIONAL SERVICES:

Installation qualification



Operational qualification



Performance Qualification

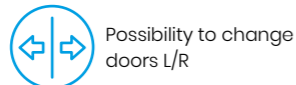
freezing cabinet

SLM 500

-10...-30°C



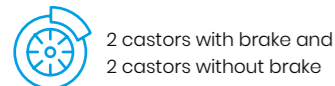
Eco-friendly refrigerant



Possibility to change doors L/R



Check hole



2 castors with brake and 2 castors without brake



Additional 2 levelling legs

STANDARD EQUIPMENT:

- RAL 9016 coated external body
- Interior made of AISI 304 acid-resistant steel
- 70 mm insulation
- Eco-friendly refrigerant
- Solid door with replaceable seal
- Mechanical door lock
- Automatic door closing system
- Possibility to change doors L/R
- Electronic temperature controller with digital display allowing to change the temperature setting every 0.1K
- High and low temperature visual and sound alarm
- Open door alarm
- Dirty condenser coil alarm
- Broken temperature sensor alarm
- External alarm output - potential-free contact
- Auto-defrost and condensation evaporating
- Shelf guides / horizontal supports
- 4 coated wire shelves
- Adjustable shelf position
- Check hole
- 2 castors with brake and 2 castors without brake
- 2 additional adjustable legs
- Handles on the back of the device for easy transport

OPTIONAL EQUIPMENT:

- Alarm backup battery
- Power failure alarm
- Temperature recorder
- Change of the standard temperature range
- Additional check hole in the wall
- Glycol container
- PVC adjustable legs
- 75 mm drawer with dividers
- 150 mm drawer
- Additional shelf guides / horizontal supports
- Additional shelves (coated wire, inox wire)
- LED lighting
- External body made of AISI 304 acid-resistant steel
- External standalone temperature monitoring set with a SIM card

ADDITIONAL SERVICES:

Installation qualification



Operational qualification



Performance Qualification

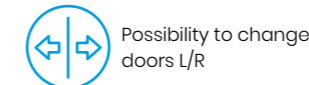
freezing cabinet

SLM 700

-10...-30°C



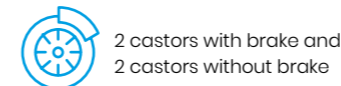
Eco-friendly refrigerant



Possibility to change doors L/R



Check hole



2 castors with brake and 2 castors without brake



Additional 2 levelling legs

STANDARD EQUIPMENT:

- RAL 9016 coated external body
- Interior made of AISI 304 acid-resistant steel
- 70 mm insulation
- Eco-friendly refrigerant
- Solid door with replaceable seal
- Mechanical door lock
- Automatic door closing system
- Possibility to change doors L/R
- Electronic temperature controller with digital display allowing to change the temperature setting every 0.1K
- High and low temperature visual and sound alarm
- Open door alarm
- Dirty condenser coil alarm
- Broken temperature sensor alarm
- External alarm output - potential-free contact
- Auto-defrost and condensation evaporating
- Shelf guides / horizontal supports
- 4 coated wire shelves
- Adjustable shelf position
- Check hole
- 2 castors with brake and 2 castors without brake
- 2 additional adjustable legs
- Handles on the back of the device for easy transport

OPTIONAL EQUIPMENT:

- Alarm backup battery
- Power failure alarm
- Temperature recorder
- Change of the standard temperature range
- Additional check hole in the wall
- Glycol container
- PVC adjustable legs
- 75 mm drawer with dividers
- 150 mm drawer
- Additional shelf guides / horizontal supports
- Additional shelves (coated wire, inox wire)
- LED lighting
- External body made of AISI 304 acid-resistant steel
- External standalone temperature monitoring set with a SIM card

ADDITIONAL SERVICES:

Installation qualification



Operational qualification



Performance Qualification

freezing cabinet

SLM 1400

-10...-30°C

Eco-friendly
refrigerantCheck
hole3 castors with brake and
2 castors without brakeAdditional
2 levelling legs**STANDARD EQUIPMENT:**

- RAL 9016 coated external body
- Interior made of AISI 304 acid-resistant steel
- 70 mm insulation
- Eco-friendly refrigerant
- Solid door with replaceable seal
- Mechanical door lock
- Automatic door closing system
- Electronic temperature controller with digital display allowing to change the temperature setting every 0.1K
- High and low temperature visual and sound alarm
- Open door alarm
- Dirty condenser coil alarm
- Broken temperature sensor alarm
- External alarm output - potential-free contact
- Auto-defrost and condensation evaporating
- Shelf guides / horizontal supports
- 8 coated wire shelves
- Adjustable shelf position
- Check hole
- 3 castors with brake and 2 castors without brake
- 2 additional adjustable legs
- Handles on the back of the device for easy transport

**OPTIONAL EQUIPMENT:**

- Alarm backup battery
- Power failure alarm
- Temperature recorder
- Change of the standard temperature range
- Additional check hole in the wall
- Glycol container
- PVC adjustable legs
- 75 mm drawer with dividers
- 150 mm drawer
- Additional shelf guides / horizontal supports
- Additional shelves (coated wire, inox wire)
- LED lighting
- External body made of AISI 304 acid-resistant steel
- External standalone temperature monitoring set with a SIM card

**ADDITIONAL SERVICES:**Installation
qualificationOperational
qualificationPerformance
Qualification

04

Line

SLMB -30...-45

LOW TEMPERATURE FREEZER RANGE -30°C TO -45°C



SLMB 100	46
SLMB 500	47
SLMB 700	48

Bolarus S.A. implemented the use of a new refrigeration system solution in low temperature devices, BOL50. It contains an ecological and innovative refrigerants' mixture. The devices have effective static cooling, based on a single-stage system. They are characterized by high temperature homogeneity and stability and very quick achievement of the set parameters.

- environmentally friendly refrigerant with a GWP of only 4.5
- device with a simple one-stage refrigeration system
- temperature range in devices: -50 ° C
- compact design, lower weight

Ecological ECO refrigerant BOL50

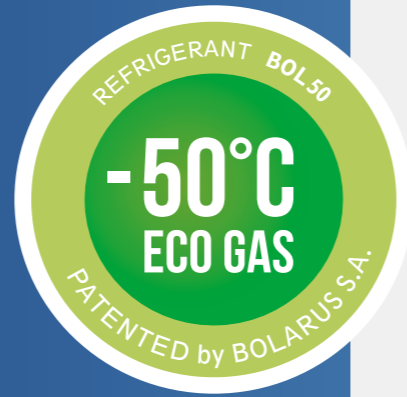
The project involved the implementation of a new series of low-temperature cabinets for production and included the use of a refrigeration system solution developed by Bolarus S.A. containing an ecological and innovative refrigerants' mixture, the works were consulted by scientists from the Cracow University of Technology.

As a result of the research, a BOL50 mixture was obtained, characterized in particular by:

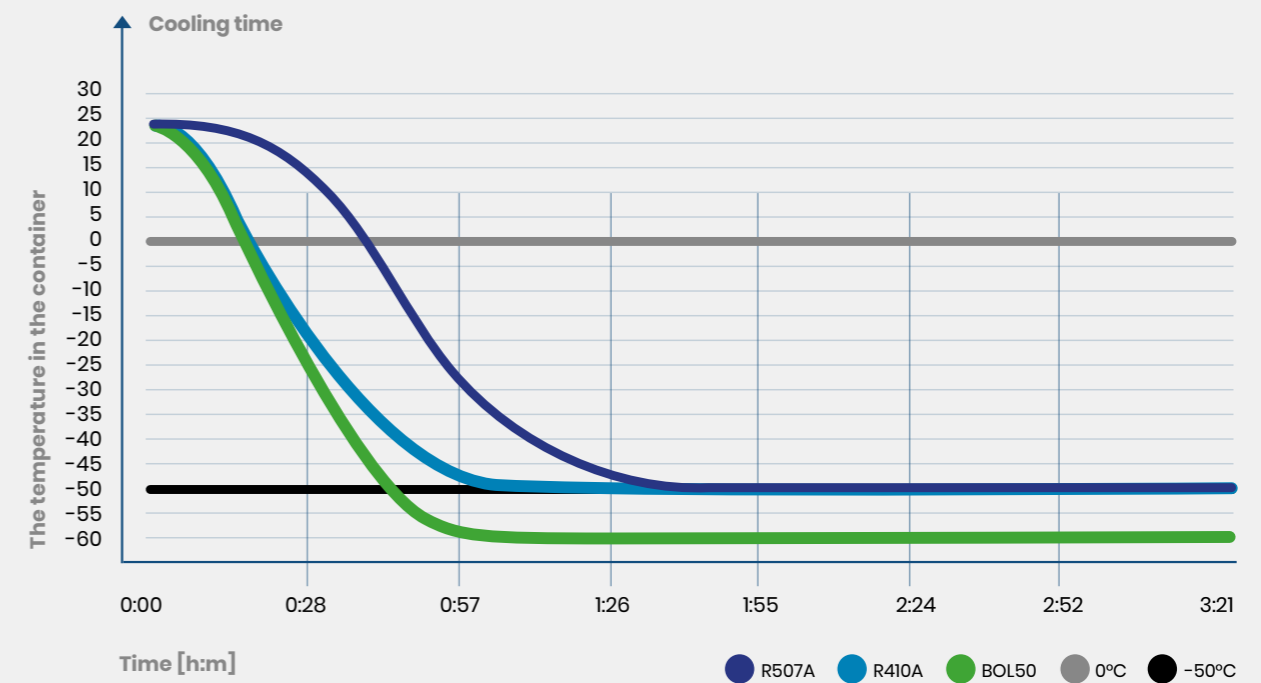
- environmentally friendly refrigerant with a GWP of only 4.5
- device with a simple one-stage refrigeration system
- temperature range in devices: -50 °C
- compact design, lower weight, easy service

According to refrigeration technique, to get the temperature inside the device at level of -50 °C, it is necessary to use a mixture that allows to obtain a boiling point at the level of -60 °C. Only BOL50 allowed to safely achieve such operating parameters.

Tests and comparisons were carried out for several low boiling point refrigerants available on the market. The table shows the basic properties of popular refrigerants.



	BOL50	R410A	R507A
Boiling point at ambient pressure $p_a=1$ bar) [°C]	-80,5	-51,4	-46,7
Manometric pressure p_m to get -50°C [bar]	1,0	-0,2	-0,3
Boiling point at p_m pracy [°C]	-63,9	-56,2	-55,0
Global Warming Potential	4,5	2088	3985



low temperature cabinet

SLMB 100

-30...-40°C



STANDARD EQUIPMENT:

- RAL 9016 coated external body
- Interior made of AISI 304 acid-resistant steel
- 70 mm insulation
- Eco-friendly refrigerant
- Solid door with replaceable seal
- Mechanical door lock
- Automatic door closing system
- Right-hand door
- Electronic temperature controller with digital display allowing to change the temperature setting every 0.1K
- High and low temperature visual and sound alarm
- Open door alarm
- Dirty condenser coil alarm
- Broken temperature sensor alarm
- External alarm output - potential-free contact
- Shelf guides / horizontal supports
- 2 coated wire shelves
- Adjustable shelf position
- Check hole
- Adjustable legs

OPTIONAL EQUIPMENT:

- Alarm backup battery
- Power failure alarm
- Temperature recorder
- Change of the standard temperature range
- Additional check hole in the wall
- Glycol container
- 2 castors with brake and 2 castors without brake
- Additional shelf guides / horizontal supports
- Additional shelves (coated wire, inox wire)
- Left-hand door
- LED lighting
- External body made of AISI 304 acid-resistant steel
- External standalone temperature monitoring set with a SIM card

ADDITIONAL SERVICES:



Installation qualification



Operational qualification



Performance Qualification

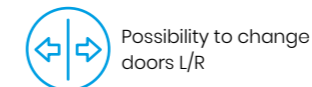
low temperature cabinet

SLMB 500

-30...-45°C



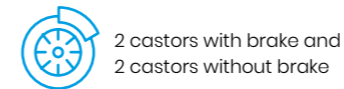
Eco-friendly refrigerant



Possibility to change doors L/R



Check hole



2 castors with brake and 2 castors without brake



Additional 2 levelling legs

STANDARD EQUIPMENT:

- RAL 9016 coated external body
- Interior made of AISI 304 acid-resistant steel
- 70 mm insulation
- Eco-friendly refrigerant
- Solid door with replaceable seal
- Mechanical door lock
- Automatic door closing system
- Possibility to change doors L/R
- Electronic temperature controller with digital display allowing to change the temperature setting every 0.1K
- High and low temperature visual and sound alarm
- Open door alarm
- Dirty condenser coil alarm
- Broken temperature sensor alarm
- External alarm output - potential-free contact
- Auto-defrost and condensation evaporating
- 4 perforated sheet metal shelves
- Check hole
- 2 castors with brake and 2 castors without brake
- 2 additional adjustable legs
- Handles on the back of the device for easy transport

OPTIONAL EQUIPMENT:

- Alarm backup battery
- Power failure alarm
- Temperature recorder
- Change of the standard temperature range
- Additional check hole in the wall
- Glycol container
- PVC adjustable legs
- LED lighting
- External body made of AISI 304 acid-resistant steel
- External standalone temperature monitoring set with a SIM card

ADDITIONAL SERVICES:



Installation qualification



Operational qualification

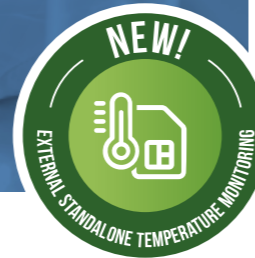


Performance Qualification

low temperature cabinet

SLMB 700

-30...-45°C



Eco-friendly refrigerant



Possibility to change doors L/R



Check hole



2 castors with brake and 2 castors without brake



Additional 2 levelling legs

**STANDARD EQUIPMENT:**

- RAL 9016 coated external body
- Interior made of AISI 304 acid-resistant steel
- 70 mm insulation
- Eco-friendly refrigerant
- Solid door with replaceable seal
- Mechanical door lock
- Automatic door closing system
- Possibility to change doors L/R
- Electronic temperature controller with digital display allowing to change the temperature setting every 0.1K
- High and low temperature visual and sound alarm
- Open door alarm
- Dirty condenser coil alarm
- Broken temperature sensor alarm
- External alarm output - potential-free contact
- Auto-defrost and condensation evaporating
- 4 perforated sheet metal shelves
- Check hole
- 2 castors with brake and 2 castors without brake
- 2 additional adjustable legs
- Handles on the back of the device for easy transport

**OPTIONAL EQUIPMENT:**

- Alarm backup battery
- Power failure alarm
- Temperature recorder
- Change of the standard temperature range
- Additional check hole in the wall
- Glycol container
- PVC adjustable legs
- LED lighting
- External body made of AISI 304 acid-resistant steel
- External standalone temperature monitoring set with a SIM card

**ADDITIONAL SERVICES:**

Installation qualification



Operational qualification



Performance Qualification

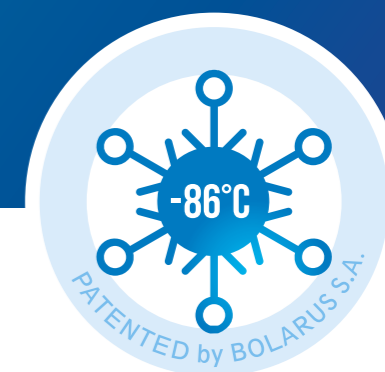


05

Line

ULTU -40...-86

ULTRA-LOW TEMPERATURE FREEZER RANGE -40°C



ULTU 100	53
ULTU 400	54
ULTU 500	55
ULTU 650	56

Line ULTU - 40...-86



Bolarus offers a wide range of upright Ultra Low Temperature freezers. Products are based on the well-known and proven double stage compressors - cascade, the efficient structure of the cooling system with eco-friendly refrigerants (HCF and HCFC free) with easy access for maintenance. Vacuum Panels Insulation (VIP) reduce the power consumption. Constant monitoring of freezers' parameters will allow detection any critical drift in its performance and enable prevention of any potential risk of sample loss.

Key features of the product:

- The cascade technology gives double security of the stored products
- Low energy consumption is possible thanks to the ECO mode and ultra-efficient panels with vacuum insulation (VIP)
- The reduced noise level to 55 dB provides a better and comfortable working environment
- Self-diagnosis function, ensures correct operation of the alarm system
- Adjustable shelves meet all your storage needs
- Insulated inner doors minimize the loss of cold when opening the door
- Easily removable inner door for easy maintenance
- Insulated door with gasket protects the samples and guarantees an homogeneous interior temperature
- 100% HCFC / CFC free
- Heated silicon gasket prevents the door freezing to the frame of the device
- Heated decompression valve for easy opening
- Stainless steel inner chambers
- Front service access
- Ergonomic handle with door lock ensures the safety of stored samples
- Castors and adjustable legs

7" touch screen enable driving and display of the freezer's information and parameters related to its performance



ultra-low temperature cabinet

ULTU 100

-40...-86°C



Eco-friendly refrigerant



Electronic temperature controller with digital display



Alarm backup battery



2 check holes



2 adjustable legs and 2 rolls



Manual decompression valve



Easy access to condenser cleaning



STANDARD EQUIPMENT:

- RAL 7012 / RAL 7035 coated external body
- Interior made of AISI 304 acid-resistant steel
- 120 mm insulation
- Cascade cooling system
- Eco-friendly refrigerant
- Solid door
- Right-hand door
- Electronic temperature controller with a 7" touch screen on the door, with a built-in temperature and device operating parameters recording system
- Possibility to change the temperature setting every 0.1K
- Side handle with integrated lock
- High and low temperature visual and sound alarm
- Open door alarm
- Dirty condenser coil alarm
- Broken temperature sensor alarm
- Compressor failure alarm
- Power failure alarm
- Alarm backup battery
- Shelf guides / horizontal supports
- 1 perforated sheet metal shelf
- Adjustable shelf position
- 2 check holes
- 2 adjustable legs or 2 rolls
- Easy access to condenser cleaning
- Condenser filter
- Manual decompression valve



OPTIONAL EQUIPMENT:

- 2 castors with brake and 2 castors without brake
- Additional shelf guides / horizontal supports
- Additional (perforated) shelves
- Left-hand door
- External standalone temperature monitoring set with a SIM card
- External alarm output - potential-free contact
- CO₂ backup



ADDITIONAL SERVICES:



Installation qualification



Operational qualification



Performance Qualification

ultra-low temperature cabinet

ULTU 400

-40...-86°C



- VIP panel in the side walls, back and door
- Eco-friendly refrigerant (R 290 R 1150)
- Electronic temperature controller with digital display
- Alarm backup battery
- 8 check holes
- 2 castors with brake and 2 castors without brake
- Manual decompression valve
- Easy access to condenser cleaning

STANDARD EQUIPMENT:

- RAL 7012 / RAL 7035 coated external body
- Interior made of AISI 304 acid-resistant steel
- 120 mm insulation (including VIP panel)
- VIP panel in the side walls, back and door
- Cascade cooling system
- Eco-friendly refrigerant
- Solid door
- Right-hand door
- 4 insulated closed inner doors limiting heat loss whilst opening
- Electronic temperature controller with a 7" touch screen on the door, with a built-in temperature and device operating parameters recording system
- Possibility to change the temperature setting every 0.1K
- Side handle with integrated lock
- High and low temperature visual and sound alarm
- Open door alarm
- Dirty condenser coil alarm
- Broken temperature sensor alarm
- Compressor failure alarm
- Power failure alarm
- Alarm backup battery
- External alarm output - potential-free contact
- Shelf guides / horizontal supports
- 2 perforated sheet metal shelves (movable)
- 1 perforated sheet metal shelf (fixed)
- 8 check holes
- 2 castors with brake and 2 castors without brake
- Manual decompression valve
- Easy access to condenser cleaning

OPTIONAL EQUIPMENT:

- Additional shelf guides / horizontal supports
- Additional (perforated) shelves
- Left-hand door
- Condenser filter
- External standalone temperature monitoring set with a SIM card
- CO₂ backup

ADDITIONAL SERVICES:

- Installation qualification
- Operational qualification
- Performance Qualification

ultra-low temperature cabinet

ULTU 500

-40...-86°C



- VIP panel in the side walls, back and door
- Eco-friendly refrigerant (R 290 R 1150)
- Electronic temperature controller with digital display
- Alarm backup battery
- 8 check holes
- 2 castors with brake and 2 castors without brake
- Manual decompression valve
- Easy access to condenser cleaning

STANDARD EQUIPMENT:

- RAL 7012 / RAL 7035 coated external body
- Interior made of AISI 304 acid-resistant steel
- 120 mm insulation (including VIP panel)
- VIP panel in the side walls, back and door
- Cascade cooling system
- Eco-friendly refrigerant
- Solid door
- Right-hand door
- 4 insulated closed inner doors limiting heat loss whilst opening
- Electronic temperature controller with a 7" touch screen on the door, with a built-in temperature and device operating parameters recording system
- Possibility to change the temperature setting every 0.1K
- Side handle with integrated lock
- High and low temperature visual and sound alarm
- Open door alarm
- Dirty condenser coil alarm
- Broken temperature sensor alarm
- Compressor failure alarm
- Power failure alarm
- Alarm backup battery
- External alarm output - potential-free contact
- Shelf guides / horizontal supports
- 2 perforated sheet metal shelves (movable)
- 1 perforated sheet metal shelf (fixed)
- 8 check holes
- 2 castors with brake and 2 castors without brake
- Manual decompression valve
- Easy access to condenser cleaning

OPTIONAL EQUIPMENT:

- Temperature recorder
- Additional shelf guides / horizontal supports
- Additional (perforated) shelves
- Left-hand door
- Condenser filter
- External standalone temperature monitoring set with a SIM card

ADDITIONAL SERVICES:

- Installation qualification
- Operational qualification
- Performance Qualification

ultra-low temperature cabinet
ULTU 650
-40...-86°C



VIP panel in the side walls, back and door



Eco-friendly refrigerant



Electronic temperature controller with digital display



Alarm backup battery



8 otworów walidacyjnych



2 castors with brake and 2 castors without brake



Manual decompression valve



Easy access to condenser cleaning

STANDARD EQUIPMENT:

- RAL 7012 / RAL 7035 coated external body
- Interior made of AISI 304 acid-resistant steel
- 120 mm insulation (including VIP panel)
- VIP panel in the side walls, back and door
- Cascade cooling system
- Eco-friendly refrigerant
- Solid door
- Right-hand door
- 4 insulated closed inner doors limiting heat loss whilst opening
- Electronic temperature controller with a 7" touch screen on the door, with a built-in temperature and device operating parameters recording system
- Possibility to change the temperature setting every 0.1K
- Side handle with integrated lock
- High and low temperature visual and sound alarm
- Open door alarm
- Dirty condenser coil alarm
- Broken temperature sensor alarm
- Compressor failure alarm
- Power failure alarm
- Alarm backup battery
- External alarm output - potential-free contact
- Shelf guides / horizontal supports
- 2 perforated sheet metal shelves (movable)
- 1 perforated sheet metal shelf (fixed)
- 8 check holes
- 2 castors with brake and 2 castors without brake
- Manual decompression valve
- Easy access to condenser cleaning

OPTIONAL EQUIPMENT:

- Additional shelf guides / horizontal supports
- Additional (perforated) shelves
- Left-hand door
- Condenser filter
- External standalone temperature monitoring set with a SIM card
- CO₂ backup

ADDITIONAL SERVICES:



Installation qualification



Operational qualification



Performance Qualification

Storage Systems for ultra-low temperature freezers

ULTU 100 | ULTU 400 | ULTU 500 | ULTU 650



	Cardboard Rack	AluRack	Standard Rack	Comfort Rack
Available box heights	50 mm	32 mm, 40 mm, 50 mm, 75 mm, 85 mm, 100 mm, 130 mm	32 mm, 40 mm, 50 mm, 75 mm, 85 mm, 100 mm, 130 mm	32 mm, 40 mm, 50 mm, 75 mm, 85 mm, 100 mm, 130 mm
Type	Side-opening	Side-opening	Side-opening	Sliding shelves
Material	Corrugated cardboard with Water-repellant PP coated	Aluminium	Stainless Steel	Stainless Steel
More information	It is ideal for long term storage or for applications where the budget is very limited. The double wall design with PP coating on both sides gives a high durability.	A racking option for use in laboratory freezers. The rack is made of non-anodized aluminium with high endurance.	The Standard Rack made of stainless steel meets the expectations of the most demanding customer.	Comfort Rack is a stainless steel solution. The easy grip drawers have the unique "stop alert" system which improves the safety of the stored materials.

Specifications



Model	SLC 55	SLC 55 GLASS
Temperature range	+2...+10 [°C]	+2...+10 [°C]
Max. ambient temperature	+25 [°C] at 60% HR	+25 [°C] at 60% HR
Gross capacity	55 [dm³]	55 [dm³]
Net capacity	50 [dm³]	50 [dm³]
External dimensions [mm-w x d x h]	480x527x787	480x527x787
Internal dimensions [mm-w x d x h]	380x280/175x590	380x280/175x590
Weight	70 [kg]	70 [kg]
Max. load	40 [kg]	40 [kg]
Number of shelves	2 [pcs]	2 [pcs]
Number of guides/horizontal supports:	8 [pcs]	8 [pcs]
Max. shelf load	20 [kg]	20 [kg]
Number of external doors	1	1
Insulation	50 [mm]	50 [mm]
Refrigerant	R600a	R600a
Cooling type	dynamic	dynamic
Power	230/50 [V/Hz]	230/50 [V/Hz]
Daily energy consumption	2.3 [kWh/24h]	2.3 [kWh/24h]
Power rating	190 [W]	200 [W]
Noise level	50 [dB]	50 [dB]



Model	SLC 100	SLC 100 GLASS	SLC 300	SLC 300 GLASS
Temperature range	+2...+10 [°C]	+2...+10 [°C]	+2...+10 [°C]	+2...+10 [°C]
Max. ambient temperature	+25 [°C] at 60% HR	+25 [°C] at 60% HR	+25 [°C] at 60% HR	+25 [°C] at 60% HR
Gross capacity	90 [dm³]	90 [dm³]	300 [dm³]	300 [dm³]
Net capacity	85 [dm³]	85 [dm³]	260 [dm³]	260 [dm³]
External dimensions [mm-w x d x h]	650x645x853	650x645x853	540x764(710)x1994	540x764(710)x1994
Internal dimensions [mm-w x d x h]	510x356/172x625	510x356/172x625	400x560x1500	400x560x1500
Weight	90 [kg]	90 [kg]	100 [kg]	100 [kg]
Max. load	60 [kg]	60 [kg]	120 [kg]	120 [kg]
Number of shelves	2 [pcs]	2 [pcs]	4 [pcs]	4 [pcs]
Number of guides/horizontal supports:	8 [pcs]	8 [pcs]	8 [pcs]	8 [pcs]
Max. shelf load	25 [kg]	25 [kg]	30 [kg]	30 [kg]
Number of external doors	1	1	1	1
Insulation	70 [mm]	70 [mm]	70 [mm]	70 [mm]
Refrigerant	R600a	R600a	R290	R290
Cooling type	dynamic	dynamic	dynamic	dynamic
Power	230/50 [V/Hz]	230/50 [V/Hz]	230/50 [V/Hz]	230/50 [V/Hz]
Daily energy consumption	2.6 [kWh/24h]	2.7 [kWh/24h]	3.2 [kWh/24h]	3.2 [kWh/24h]
Power rating	220 [W]	230 [W]	270 [W]	279 [W]
Noise level	50 [dB]	51 [dB]	52 [dB]	53 [dB]

Specifications



SLC 500	SLC 500 GLASS	SLC 700
+2...+10 [°C]	+2...+10 [°C]	+2...+10 [°C]
+25 [°C] at 60% HR	+25 [°C] at 60% HR	+25 [°C] at 60% HR
500 [dm³]	500 [dm³]	610 [dm³]
480 [dm³]	480 [dm³]	580 [dm³]
540x870(824)x1994	540x870(824)x1994	740x870(824)x1994
500x680x1500	500x680x1500	600x680x1500
120 [kg]	120 [kg]	130 [kg]
120 [kg]	120 [kg]	120 [kg]
4 [pcs]	4 [pcs]	4 [pcs]
8 [pcs]	8 [pcs]	8 [pcs]
30 [kg]	30 [kg]	30 [kg]
1	1	1
70 [mm]	70 [mm]	70 [mm]
R290	R290	R290
dynamic	dynamic	dynamic
230/50 [V/Hz]	230/50 [V/Hz]	230/50 [V/Hz]
5.1 [kWh/24h]	5.1 [kWh/24h]	5.9 [kWh/24h]
430 [W]	430 [W]	500 [W]
54 [dB]	54 [dB]	55 [dB]



SLC 700 GLASS	SLC 1400	SLC 1400 GLASS
+2...+10 [°C]	+2...+10 [°C]	+2...+10 [°C]
+25 [°C] at 60% HR	+25 [°C] at 60% HR	+25 [°C] at 60% HR
610 [dm³]	1360 [dm³]	1360 [dm³]
580 [dm³]	1260 [dm³]	1260 [dm³]
740x870(824)x1994	1480x870(824)x1994	1480x870(824)x1994
600x680x1500	1340x680x1500	1340x680x1500
145 [kg]	170 [kg]	205 [kg]
120 [kg]	240 [kg]	240 [kg]
4 [pcs]	8 [pcs]	8 [pcs]
8 [pcs]	16 [pcs]	16 [pcs]
30 [kg]	30 [kg]	30 [kg]
1	2	2
70 [mm]	70 [mm]	70 [mm]
R290	R290	R290
dynamic	dynamic	dynamic
230/50 [V/Hz]	230/50 [V/Hz]	230/50 [V/Hz]
6.0 [kWh/24h]	7.9 [kWh/24h]	8.0 [kWh/24h]
520 [W]	700 [W]	730 [W]
55 [dB]	55 [dB]	57 [dB]

Specifications



Model	SLC / SLC 300	SLC / SLC 700
Temperature range	+2...+10/+2...+10 [°C]	+2...+10/+2...+10 [°C]
Max. ambient temperature	+25 [°C] at 60% HR	+25 [°C] at 60% HR
Gross capacity	150x2 [dm ³]	305x2 [dm ³]
Net capacity	120x2 [dm ³]	255x2 [dm ³]
External dimensions [mm-w x d x h]	520x751(702)x1994	720x872(815)x1994
Internal dimensions [mm-w x d x h]	(400x570x690)x2	(600x650x690)x2
Weight	120 [kg]	150 [kg]
Max. load	120 [kg]	120 [kg]
Number of shelves	4 [pcs]	4 [pcs]
Number of guides/horizontal supports:	8 [pcs]	8 [pcs]
Max. shelf load	30 [kg]	30 [kg]
Number of external doors	2	2
Insulation	60 [mm]	60 [mm]
Refrigerant	R290	R290
Cooling type	dynamic	dynamic
Power	230/50 [V/Hz]	230/50 [V/Hz]
Daily energy consumption	3.0/3.0 [kWh/24h]	3.2/3.2 [kWh/24h]
Power rating	300/300 [W]	400/400 [W]
Noise level	53 [dB]	55 [dB]



Model	SLC / SLM 300	SLC / SLM 300 GLASS	SLC / SLM 700	SLC / SLM 700 GLASS
Temperature range	+2...+10/-10...-30 [°C]	+2...+10/-10...-30 [°C]	+2...+10/-10...-30 [°C]	+2...+10/-10...-30 [°C]
Max. ambient temperature	+25 [°C] at 60% HR	+25 [°C] at 60% HR	+25 [°C] at 60% HR	+25 [°C] at 60% HR
Gross capacity	150x2 [dm ³]	150x2 [dm ³]	305x2 [dm ³]	305x2 [dm ³]
Net capacity	120x2 [dm ³]	120x2 [dm ³]	255x2 [dm ³]	255x2 [dm ³]
External dimensions [mm-w x d x h]	520x751(702)x1994	520x751(702)x1994	720x872(815)x1994	720x863(815)x1994
Internal dimensions [mm-w x d x h]	(400x570x690)x2	(400x570x690)x2	(600x650x690)x2	(600x650x690)x2
Weight	120 [kg]	120 [kg]	150 [kg]	165 [kg]
Max. load	120 [kg]	120 [kg]	120 [kg]	120 [kg]
Number of shelves	4 [pcs]	4 [pcs]	4 [pcs]	4 [pcs]
Number of guides/horizontal supports:	8 [pcs]	8 [pcs]	8 [pcs]	8 [pcs]
Max. shelf load	30 [kg]	30 [kg]	30 [kg]	30 [kg]
Number of external doors	2	2	2	2
Insulation	60 [mm]	60 [mm]	60 [mm]	60 [mm]
Refrigerant	R290	R290	R290	R290
Cooling type	dynamic	dynamic	dynamic	dynamic
Power	230/50 [V/Hz]	230/50 [V/Hz]	230/50 [V/Hz]	230/50 [V/Hz]
Daily energy consumption	2.8/4.7 [kWh/24h]	2.9/4.8 [kWh/24h]	3.2/6.9 [kWh/24h]	3.2/6.9 [kWh/24h]
Power rating	300/400 [W]	300/400 [W]	400/600 [W]	450/600 [W]
Noise level	53 [dB]	53 [dB]	55 [dB]	55 [dB]

Specifications



Model	SLM 100	SLM 300
Temperature range	-10...-30 [°C]	-10...-30 [°C]
Max. ambient temperature	+25 [°C] at 60% HR	+25 [°C] at 60% HR
Gross capacity	85 [dm³]	300 [dm³]
Net capacity	80 [dm³]	260 [dm³]
External dimensions [mm-w x d x h]	650x670x853	540x764(710)x1994
Internal dimensions [mm-w x d x h]	510x295x625	400x560x1500
Weight	90 [kg]	100 [kg]
Max. load	60 [kg]	120 [kg]
Number of shelves	2 [pcs]	4 [pcs]
Number of guides/horizontal supports:	4 [pcs]	8 [pcs]
Max. shelf load	25 [kg]	30 [kg]
Number of external doors	1	1
Insulation	70 [mm]	70 [mm]
Refrigerant	R290	R290
Cooling type	dynamic	dynamic
Power	230/50 [V/Hz]	230/50 [V/Hz]
Daily energy consumption	8.9 [kWh/24h]	8.9 [kWh/24h]
Power rating	800 [W]	850 [W]
Noise level	51 [dB]	53 [dB]



Model	SLM 500	SLM 700	SLM 1400
Temperature range	-10...-30 [°C]	-10...-30 [°C]	-10...-30 [°C]
Max. ambient temperature	+25 [°C] at 60% HR	+25 [°C] at 60% HR	+25 [°C] at 60% HR
Gross capacity	500 [dm³]	610 [dm³]	1360 [dm³]
Net capacity	480 [dm³]	580 [dm³]	1260 [dm³]
External dimensions [mm-w x d x h]	640x870(824)x1994	740x870(824)x1994	1480x870(824)x1994
Internal dimensions [mm-w x d x h]	500x680x1500	600x680x1500	1340x680x1500
Weight	120 [kg]	140 [kg]	200 [kg]
Max. load	120 [kg]	120 [kg]	240 [kg]
Number of shelves	2 [pcs]	4 [pcs]	8 [pcs]
Number of guides/horizontal supports:	8 [pcs]	8 [pcs]	16 [pcs]
Max. shelf load	30 [kg]	30 [kg]	30 [kg]
Number of external doors	1	1	2
Insulation	70 [mm]	70 [mm]	70 [mm]
Refrigerant	R290	R290	R290
Cooling type	dynamic	dynamic	dynamic
Power	230/50 [V/Hz]	230/50 [V/Hz]	230/50 [V/Hz]
Daily energy consumption	9.1 [kWh/24h]	9.8 [kWh/24h]	14.00 [kWh/24h]
Power rating	920 [W]	950 [W]	1100 [W]
Noise level	55 [dB]	55 [dB]	55 [dB]

Specifications



Model	SLMB 100
Temperature range	-30...-40 [°C]
Max. ambient temperature	+25 [°C] at 60% HR
Gross capacity	90 [dm³]
Net capacity	70 [dm³]
External dimensions [mm-w x d x h]	650x671x853
Internal dimensions [mm-w x d x h]	510x355/170x585
Weight	90 [kg]
Max. load	60 [kg]
Number of shelves	2 [pcs]
Number of guides/horizontal supports:	8 [pcs]
Max. shelf load	25 [kg]
Number of external doors	1
Insulation	70 [mm]
Refrigerant	BOL50
Cooling type	static
Power	230/50 [V/Hz]
Daily energy consumption	14.4 [kWh/24h]
Power rating	800 [W]
Noise level	51 [dB]



Model	SLMB 500
Temperature range	-30...-45 [°C]
Max. ambient temperature	+25 [°C] at 60% HR
Gross capacity	450 [dm³]
Net capacity	350 [dm³]
External dimensions [mm-w x d x h]	640x870(824)x1994
Internal dimensions [mm-w x d x h]	500x670x1400
Weight	140 [kg]
Max. load	120 [kg]
Number of shelves	4 [pcs]
Number of guides/horizontal supports:	-
Max. shelf load	30 [kg]
Number of external doors	1
Insulation	70 [mm]
Refrigerant	BOL50
Cooling type	static
Power	230/50 [V/Hz]
Daily energy consumption	16.2 [kWh/24h]
Power rating	920 [W]
Noise level	52 [dB]



Model	SLMB 700
Temperature range	-30...-45 [°C]
Max. ambient temperature	+25 [°C] at 60% HR
Gross capacity	530 [dm³]
Net capacity	430 [dm³]
External dimensions [mm-w x d x h]	740x870(824)x1994
Internal dimensions [mm-w x d x h]	600x670x1400
Weight	160 [kg]
Max. load	120 [kg]
Number of shelves	4 [pcs]
Number of guides/horizontal supports:	-
Max. shelf load	30 [kg]
Number of external doors	1
Insulation	70 [mm]
Refrigerant	BOL50
Cooling type	static
Power	230/50 [V/Hz]
Daily energy consumption	16.9 [kWh/24h]
Power rating	950 [W]
Noise level	52 [dB]

Specifications



Model	ULTU 100
Temperature range	-40...-86 [°C]
Max. ambient temperature	+25 [°C] at 60% HR
Gross capacity	90 [dm³]
Net capacity	65 [dm³]
External dimensions [mm-w x d x h]	882x875(775)x850
Internal dimensions [mm-w x d x h]	590x455x340
Weight	130 [kg]
Max. load	50 [kg]
Number of shelves	1 [pcs]
Number of guides/horizontal supports:	4 [pcs]
Possible number of racks	8 [pcs]
Possible number of 50mm / 2" containers	72 [pcs]
Max. shelf load	25 [kg]
Number of external doors	1
Number of internal doors	-
Insulation	120 [mm]
Refrigerant	R290 / R1150
Cooling type	static
Power	230/50 [V/Hz]
Daily energy consumption	13.8 [kWh/24h]
Power rating	1100 [W]
Noise level	51 [dB]



Model	ULTU 400
Temperature range	-40...-86 [°C]
Max. ambient temperature	+25 [°C] at 60% HR
Gross capacity	370 [dm³]
Net capacity	230 [dm³]
External dimensions [mm-w x d x h]	781x1007x2000
Internal dimensions [mm-w x d x h]	465x600x1320
Weight	220 [kg]
Max. load	160 [kg]
Number of shelves	3 [pcs]
Number of guides/horizontal supports:	8 [pcs]
Possible number of racks	12 [pcs]
Possible number of 50mm / 2" containers	264 [pcs]
Max. shelf load	40 [kg]
Number of external doors	1
Number of internal doors	4
Insulation	120 [mm]
Refrigerant	R290 / R1150
Cooling type	static
Power	230/50 [V/Hz]
Daily energy consumption	14.7 [kWh/24h]
Power rating	1400 [W]
Noise level	55 [dB]

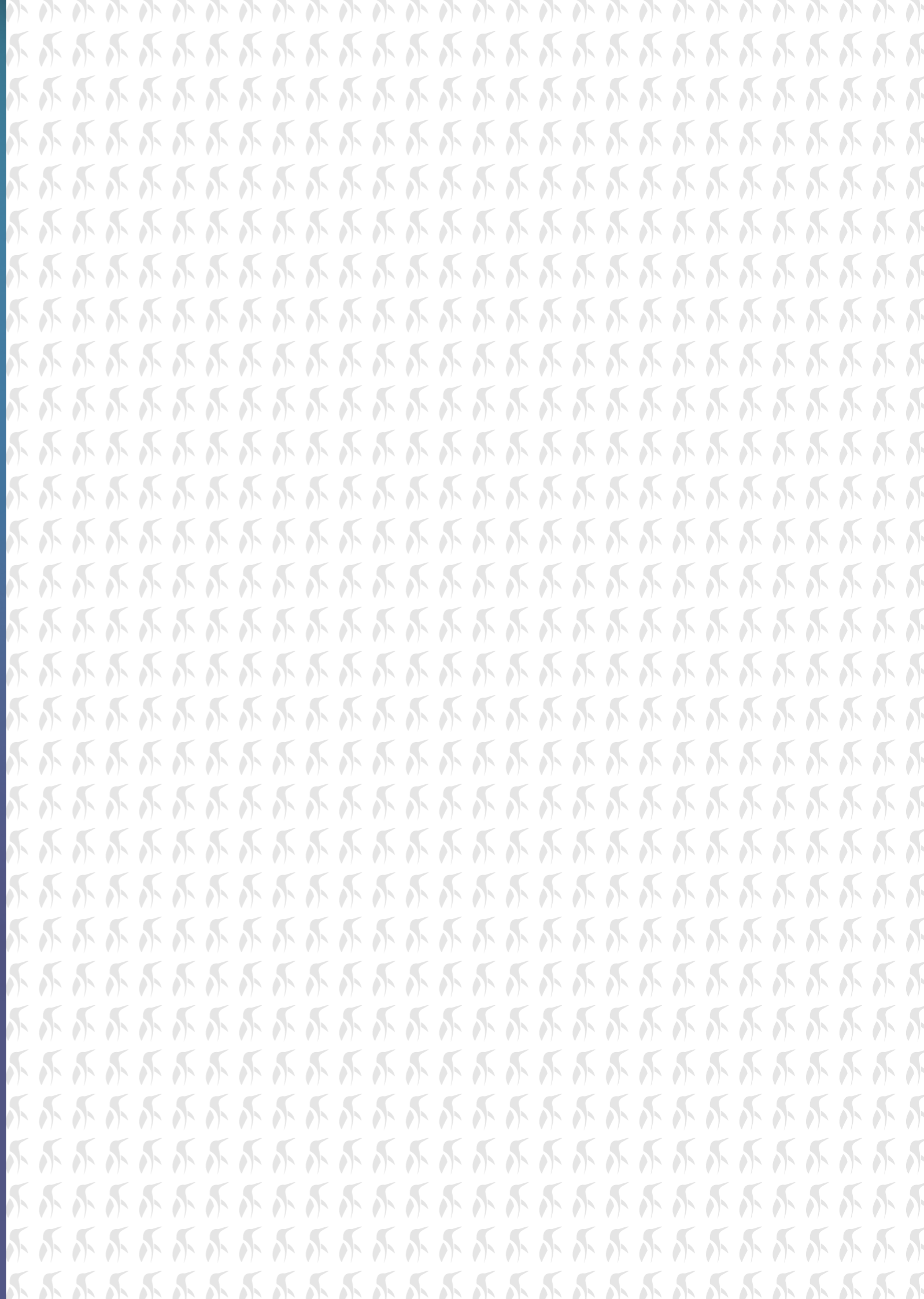
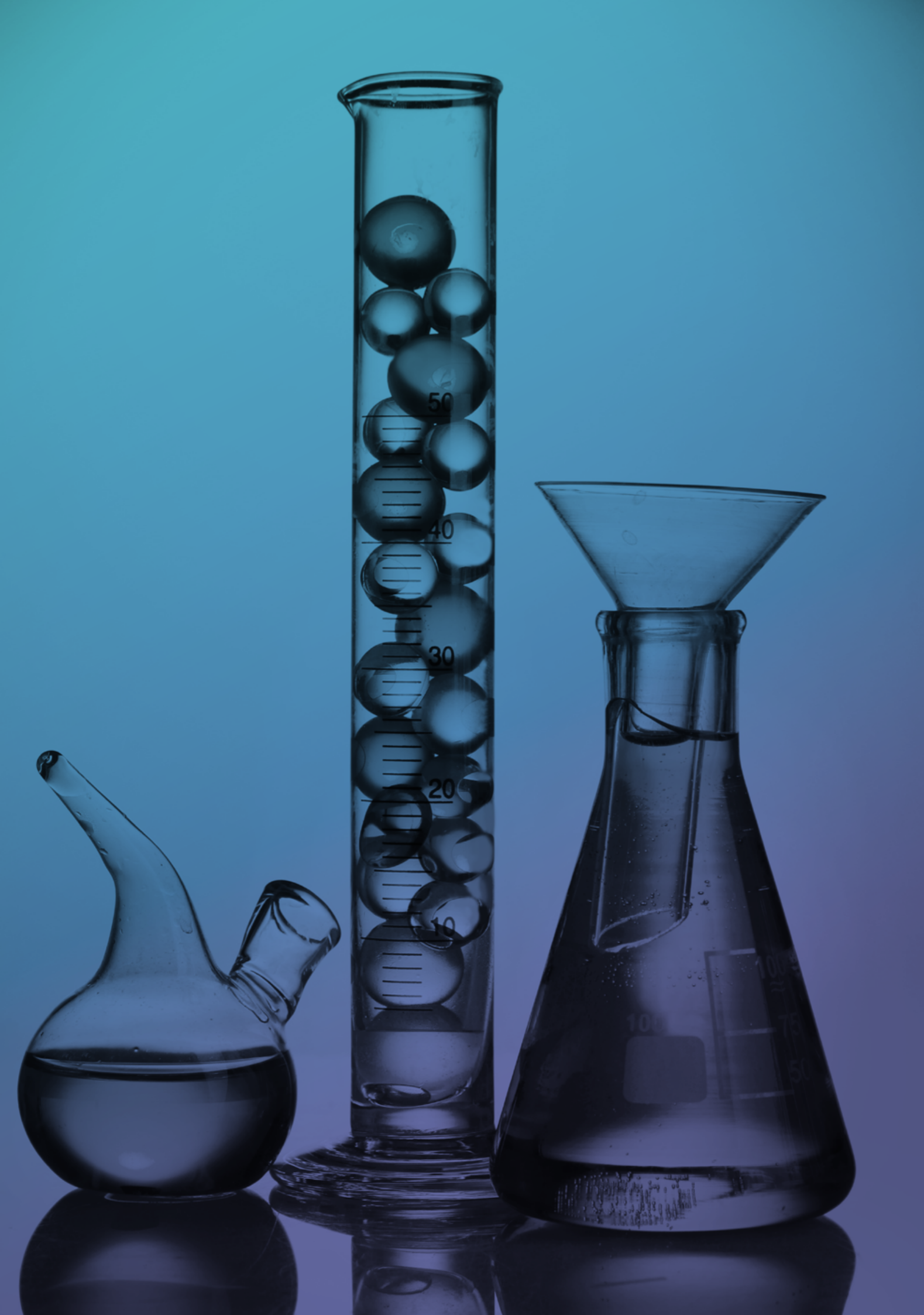


Model	ULTU 500
Temperature range	-40...-86 [°C]
Max. ambient temperature	+25 [°C] at 60% HR
Gross capacity	500 [dm³]
Net capacity	480 [dm³]
External dimensions [mm-w x d x h]	894x1015(915)x2000
Internal dimensions [mm-w x d x h]	606x600x1320
Weight	250 [kg]
Max. load	160 [kg]
Number of shelves	3 [pcs]
Number of guides/horizontal supports:	8 [pcs]
Possible number of racks	16 [pcs]
Possible number of 50mm / 2" containers	352 [pcs]
Max. shelf load	30 [kg]
Number of external doors	1
Number of internal doors	4
Insulation	120 [mm]
Refrigerant	R290 / R1150
Cooling type	static
Power	230/50 [V/Hz]
Daily energy consumption	14.8 [kWh/24h]
Power rating	1450 [W]
Noise level	55 [dB]



Model	ULTU 650
Temperature range	-40...-86 [°C]
Max. ambient temperature	+25 [°C] at 60% HR
Gross capacity	590 [dm³]
Net capacity	450 [dm³]
External dimensions [mm-w x d x h]	1061x1007x2000
Internal dimensions [mm-w x d x h]	745x600x1320
Weight	270 [kg]
Max. load	160 [kg]
Number of shelves	3 [pcs]
Number of guides/horizontal supports:	8 [pcs]
Possible number of racks	20 [pcs]
Possible number of 50mm / 2" containers	440 [pcs]
Max. shelf load	40 [kg]
Number of external doors	1
Number of internal doors	4
Insulation	120 [mm]
Refrigerant	R290 / R1150
Cooling type	static
Power	230/50 [V/Hz]
Daily energy consumption	15.1 [kWh/24h]
Power rating	1500 [W]
Noise level	55 [dB]







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