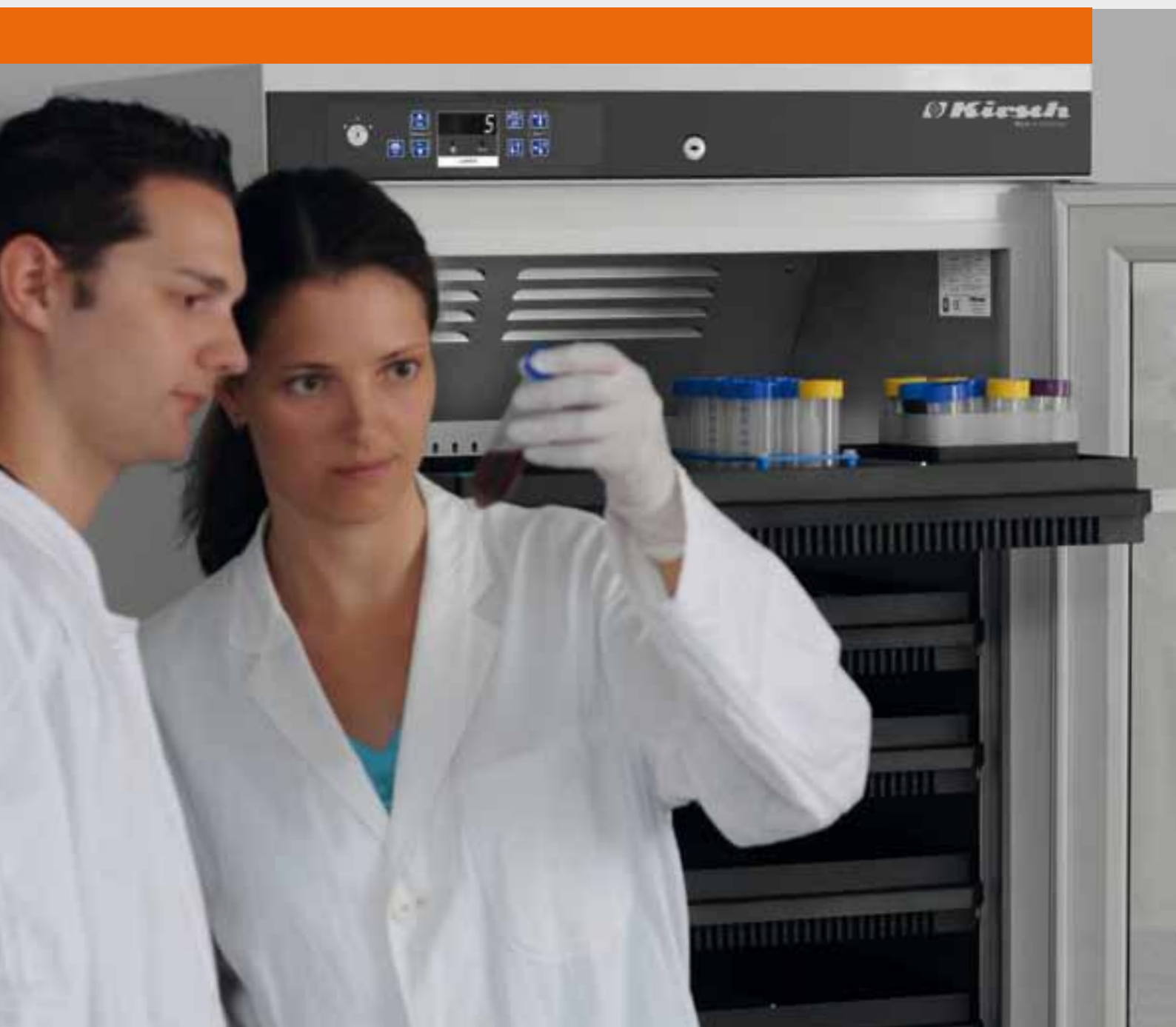


Quality since 1865.  Made in Germany.

 **Kirsch**
Reliable Cooling for Labs and Health Care

Laboratory Refrigerators and Freezers

Also with explosion-proof interior –
intrinsically safe, independently tested as well as certified.



1865

Philipp Kirsch establishes the company as a copersmith firm

1901

Beer cooling cylinders are produced

1927

KIRSCH grows to become an industrial company

1929

Bottled beer refrigerators are manufactured from galvanised sheet steel

1956

First electrical refrigerators are manufactured

1960s

Commercial cooling furniture and bottle refrigerators are manufactured



Patrick Bürkle

The third generation of his family to be employed at KIRSCH

"We have always manufactured with the utmost care in order to guarantee the highest quality. This is what our customers value."

1967

KIRSCH becomes the first manufacturer of pharmaceutical refrigerators

1980s

Blood bank refrigerators and blood plasma freezers are manufactured

1990s

Explosion-proof laboratory refrigerators and freezers are developed

2000

Offenburg manufacturing site is modernised and expanded

Today,

KIRSCH is the leading quality manufacturer of refrigerators and freezers for the laboratory and health sector

Innovation and quality since 1865.

Trust

Since 1865, we have been synonymous with high-quality products fulfilling the most stringent standards and providing the highest level of reliability. Since then, we have won over your trust through consistent innovation, quality and service. This enabled our company to manage even the more turbulent times in world history. This demonstrates: your trust is the foundation for our long-term success. We will continue to pursue this path on a permanent basis. For example, our excellent product features are certified by independent institutions. You can rely on us!

Temperature stability

Our policy of manufacturing our own housings enables us to optimally coordinate all components of our refrigerators and free-

zers. This is why we have become a world leader in temperature stability, which has been confirmed by numerous validations at customer premises. The reason is that we only manufacture products that are proven to fulfill the most stringent requirements.

Sustainability

is a trademark of our products and manufacturing process. All products are designed for a long service life. If one of our products is nearing the end of its service life, our credo is „repair not replace“. We maintain a supply of spare parts for many years. This helps to relieve the burden on your budget and on our planet's resources.

Discover our products that are coupled with experience and innovation!



A stylized handwritten signature in blue ink, reading "J. Kopitzke".

Dr. Jochen Kopitzke
Owner and CEO

Benefit from reliability and efficiency.

Why is it worth investing in KIRSCH refrigerators and freezers? Because we use the experience we have gained worldwide to manufacture refrigerators according to the most stringent quality, functionality and efficiency requirements. Your benefit: systems you can rely on 100% – because we know about the sensitivity of the goods you need to cool.*

Robust housing

Made from rust-proof, galvanised sheet steel with robust, white powder coating.

Thick insulation

Made from environmentally friendly material. Ensures low energy consumption.



Non-polluting and energy efficient through the use of natural and environmentally friendly refrigerants (HFC-free). ECOOL devices have no special installation restrictions regarding the green refrigerant, because the cooling cycle is hermetically and permanently sealed (TÜV-tested safety according to DIN-EN 1127-1:2011).¹⁾

Easy-to-maintain interior container

Manufactured from smooth aluminium with protective coating or from impact-resistant plastic with moulded-in shelves.

Flexible handling of wire shelves and drawers

Variable drawer arrangement at 15-mm intervals for refrigerators and freezers with an aluminium interior container.

Ventilation slits

Models with ventilation slits can be integrated easy into a clean room or exsisting furniture. The plastic slits improve the refrigerating machine's ventilation and are easy to clean. (See for example LABEX®-105/-335/-468 or LABO-100/-340/-468 etc.).

Automatic defrosting

The defrost cycle is activated automatically for all devices (except LABEX®-125 and FROSTER-LABEX®-70/-96). For all LABO-models the melt water evaporates automatically in the compressor room. For reasons of safety, the melt water must be emtiend manually in all LABEX®-models.



Forced-air cooling

Our devices with forced-air-cooling are equipped with an optimised air guide concept. This reduces the physically induced temperature drop and enables an almost constant temperature to be maintained.

Low-noise compressor

Reduces the noise level by 10 dB to 40 dB (corresponds to noise level I; sounds perception: whisper).

Self-closing doors

Doors left open accidentally are a thing of the past on the models with comfortable access (excluding LABEX®-285/-288).

Comfortable access

Now you no longer have to jerk doors open – all you need is one finger! Our devices with aluminium interior which are equipped with a clever opening mechanism makes the fitting even easier.

Custom door hinge

The door hinge on the lockable door is normally on the right-hand side but can be fitted to the left-hand side even after installation. There is no overhang when opening the door. The plastic magnetic seal frame is easy to replace.

Glass doors

Avoid opening the door unnecessarily to inspect the contents (optional).



LED-Illumination

Optimal and energy-efficient interior lightning mounted on top or side wall (optional).

*The model-specific features see the individual product descriptions.

¹⁾ We also provide our devices with Frigen, e.g., for overseas deliveries.

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Product name update

The models SPEZIAL-340/-468, SUPER-520/-720, SUPER-720-CHROMAT and FROSTER-320/-520/-720 can be found now under the following labels: LABO-340/-468, LABO-520/-720, LABO-720-CHROMAT and FROSTER-LABO-330/-530/-730.



Company certified by TÜV SÜD Management Service GmbH
according to ISO 9001:2008



Simple to operate and safe.

Our systems are controlled by microprocessors. This enables exact temperature control using safety devices in the case of malfunctions. Intuitive operation for smooth and easy control of our refrigerators and freezers. The model-specific features see the individual product descriptions.

Precise controls

The symbols make the system even more intuitive to operate. The control screen structure is easy to clean and promotes hygiene. Choose your exact storage temperature from a large temperature range.

Always visible

The easy-to-read LED display informs you about the temperature of the goods to be cooled and the system's operating state.

Memory

The minimum/maximum temperature memory captures the lowest and highest value since the re-start or the last time the memory was re-set. The memory starts after the target temperature has been reached for the first time.

Temperature documentation

The RS485 interface together with the optional KIRSCH-PC-KIT allows the system to be connected to a PC or network. You can benefit from automated temperature documentation or decentralised monitoring of the system status.

Automatic defrosting

The defrost cycle is activated automatically for all devices (except LABEX®-125 and FROSTER-LABEX®-70/-96). For all LABO-models the melt water evaporates automatically in the compressor room. For reasons of safety, the melt water must be emptied manually in all LABEX®-models.

Antifreeze

The goods to be cooled are protected against the temperature falling below freezing point.

Warning functions

Visual and audible alarm signals are used in case of temperature deviations and other malfunctions. Even in the case of a power failure, the monitoring unit remains operational for up to 72 hours on battery power (optional). The potential-free contact can forward alarms to, e.g., your mobile phone* or a control centre.

Controls

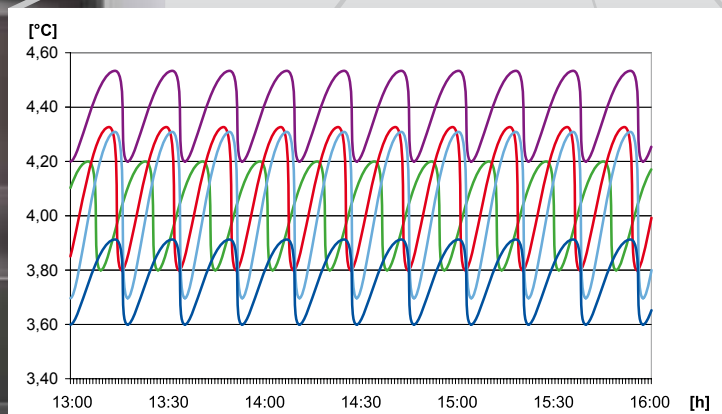
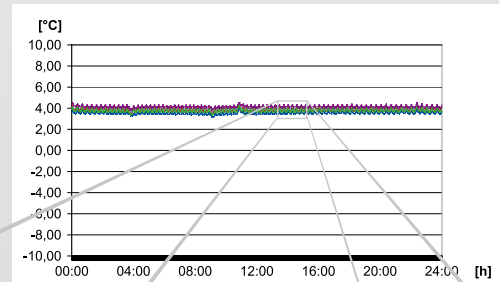
The electronic, microprocessor-based temperature controller is equipped with a manipulation-protected control centre with membrane keyboard.

Temperature measurement with log file for optimum quality control.

KIRSCH refrigerators and freezers are used in demanding storage settings (e.g., pharmaceutical research, pharmaceutical manufacturing, bioengineering, health, etc.). Temperature measurement with log file enables you to prove that our products fulfill the requirements in real-life applications (validation, such as IQ, OQ, PQ, etc.).














Extensive tests and precise calibration

Before our products are ready for market, they are exposed to the widest range of exterior conditions in the climate chamber to guarantee that the temperature can be maintained even under extreme circumstances. Before we deliver our systems, they undergo precise calibrated during a default test run lasting several hours.



Optimal air-guiding concept













The combination of forced-air cooling and temperature control ensures an almost constant cooling temperature in the entire interior, even in case of changing ambient temperatures.

| Interior description | | Refrigerators with explosion-proof interior | | | | | | Freezers with explosion-proof interior | | | | |
|---|---|--|-----------------|-------------------------|-------------------------|-------------------------|-------------------------|---|---------------------------|----------------------------|----------------------------|----------------------------|
| | | LABEX® -105 | LABEX® -125 | LABEX® -285/ -288 | LABEX® -335/ -340 | LABEX® -465/ -468 | LABEX® -520/ -720 | FROSTER- LABEX® -70 | FROSTER- LABEX® -96 | FROSTER- LABEX® -330 | FROSTER- LABEX® -530 | FROSTER- LABEX® -730 |
| 95 l | Capacity | 95 l | 120 l | 280 l | 330 l | 460 l | 500 l / 700 l | 70 l | 95 l | 300 l | 500 l | 700 l |
| 2 to 20 °C | Temperature setting Adjustable temperature range. | +2 to +20 °C | +2 to +12 °C | +2 to +20 °C | +2 to +20 °C | +2 to +20 °C | +0 to +20 °C | -15 to -22 °C | -5 to -25 °C | -5 to -30 °C | -5 to -30 °C | -5 to -30 °C |
|  32 | Ambient temperature Maximum temperature at the refrigerator's or freezer's place of installation. Correct operation is possible up to this temperature. | 38 °C | 38 °C | 38 °C | 38 °C | 38 °C | 38 °C | 32 °C | 32 °C | 32 °C | 32 °C | 32 °C |
|  | Forced-air cooling Integrated forced-air cooling reduces temperature reductions caused by the law of physics and ensures a uniform temperature in the entire interior. | ○ | ○ | ○/● | ○/● | ○/● | ● | ○ | ○ | ● | ● | ● |
|  | RS485 interface for digital temperature documentation. When used together with the optional KIRSCH-PC-KIT, the machine can be connected to a PC or network using this interface. | ● | ○ | ● | ● | ● | ● | ○ | ● | ● | ● | ● |
|  | Potential-free contact for forwarding alarms The potential-free contact allows you to forward alarms. Connect the optional GSM-Module to receive alarms as text messages to your mobile phone. You can also connect the system to a control centre. | ● | ○ | ● | ● | ● | ● | ○ | ● | ● | ● | ● |
|  | Automatic defrosting Time and temperature are monitored. Manual defrosting is no longer required. The condensate tray must be emptied manually. | ● | ○ | ● | ● | ● | ● | ○ | ○ | ● | ● | ● |
|  | Explosion-proof interior LABEX®-Standard Safety (Ex II 3 G T6) | ● | ● | ○ | ○ | ○ | ○ | ● | ● | ○ | ○ | ○ |
| | LABEX®-Intrinsic Safety (Ex II 3 G Ex c ic IIB T6) | ○ | ○ | ● | ● | ● | ● | ○ | ○ | ● | ● | ● |
|  x1 | Number of drawers Standard number of integrated drawers equipped with adjustable length and cross dividers: | 1 | 1 | ○ | ○ | ○ | ○ | Optional, depending on model. | | | | |
| | Conductive material with stops (LABEX®-Intrinsic Safety) | ○ | ○ | 1 | 2 | ○ | ○ | | | | | |
|  x1 | Number of shelves Standard number of integrated plastic-coated shelves. | 2 | 2 | 3 | 4 | 6 | 5 | 4 | 2 | 4 | 5 | 5 |
|  | Moulded-in shelves Interior containers made from impact-resistant plastic with moulded-in shelves guarantee a particularly high level of stability. The wire shelves and drawers can be easily inserted at the desired heights. | ● | ● | ○ | ○ | ○ | ○ | ● | ● | ○ | ○ | ○ |
|  | Gibs For interior containers made from aluminium, gibs allow a particularly varied use of the interior. Wire shelves and drawers can be positioned as desired every 15 mm. | ○ | ○ | ● | ● | ● | ● | ○ | ○ | ● | ● | ● |
|  | Undercounter installation Models of this type can be integrated into existing furniture and are therefore particularly space saving. When the system is installed, ensure that the refrigerating machine is sufficiently ventilated. | ● | ● | ○ | ○ | ○ | ○ | ● | ● | ○ | ○ | ○ |
|  | Comfortable access Now you no longer have to jerk doors open – all you need is one finger! | ○ | ○ | ● | ● | ● | ● | ○ | ○ | ● | ● | ● |
|  | Self-closing door Doors left open accidentally are a thing of the past. | ○ | ○ | ○ | ● | ● | ● | ○ | ○ | ● | ● | ● |

● = Yes, ○ = No


Product name update

The models SPEZIAL-340/-468, SUPER-520/-720, SUPER-720-CHROMAT and FROSTER-320/-520/-720 can be found now under the following labels: LABO-340/-468, LABO-520/-720, LABO-720-CHROMAT and FROSTER-LABO-330/-530/-730.

| | | Refrigerators without explosion-proof interior | | | | | | Freezers without explosion-proof interior | | |
|---|---|--|-----------------|-----------------|-----------------------|-----------------------|--------------------------|---|--------------------------|--------------------------|
| Interior description | | LABO -85 | LABO -100 | LABO -125 | LABO -340/ -468 | LABO -520/ -720 | LABO- 720- CHROMAT | FROSTER- LABO- 330 | FROSTER- LABO- 530 | FROSTER- LABO- 730 |
| 95 l | Capacity | 80 l | 95 l | 120 l | 330 l/ 460 l | 500 l/ 700 l | 700 l | 300 l | 500 l | 700 l |
| -15 to -22 °C | Temperature setting Adjustable temperature range. | +2 to +12 °C | +2 to +20 °C | +2 to +20 °C | +2 to +20 °C | 0 to +20 °C | +4 to +20 °C | -5 to -30 °C | -5 to -30 °C | -5 to -30 °C |
|  | Ambient temperature Maximum temperature at the refrigerator's or freezer's place of installation. Correct operation is possible up to this temperature. | 38 °C | 38 °C | 38 °C | 38 °C | 38 °C | 38 °C | 32 °C | 32 °C | 32 °C |
|  | Forced-air cooling Integrated forced-air cooling reduces temperature reductions caused by the law of physics and ensures a uniform temperature in the entire interior. | ○ | ● | ○ | ● | ● | ● | ● | ● | ● |
|  | RS485 interface For digital temperature documentation. When used together with the optional KIRSCH-PC-KIT, the machine can be connected to a PC or network using this interface. | ○ | ● | ○ | ● | ● | ● | ● | ● | ● |
|  | Potential-free contact for forwarding alarms The potential-free contact allows you to forward alarms. Connect the optional GSM-Module to receive alarms as text messages to your mobile phone. You can also connect the system to a control centre. | ○ | ● | ● | ● | ● | ● | ● | ● | ● |
|  | Automatic defrosting and condensate evaporation Time and temperature are monitored. Manual defrosting is no longer required. The condensate evaporates automatically. | ● | ● | ● | ● | ● | ● | ● | ● | ● |
|  | Number of drawers Standard number of integrated drawers with adjustable length and cross dividers. | 1 | ○ | ○ | 1/○ | ○ | ○ | Optional, depending on model. | | |
|  | Number of shelves Standard number of integrated plastic-coated shelves. | 2 | 2 | 2 | 3/4 | 5 | 5 | 4 | 5 | 5 |
|  | Moulded-in shelves Interior containers made from impact resistant plastic with moulded-in shelves guarantee a particularly high level of stability. The wire shelves and drawers can be easily inserted at the desired heights. | ● | ● | ● | ○ | ○ | ○ | ○ | ○ | ○ |
|  | Gibs For interior containers made from aluminium, gibs allow a particularly varied use of the interior. Wire shelves and drawers can be positioned as desired every 15 mm. | ○ | ○ | ○ | ● | ● | ● | ● | ● | ● |
|  | Undercounter installation Models of this type can be integrated into existing furniture and are therefore particularly space saving. When the system is installed, ensure that the refrigerating machine is sufficiently ventilated. | ● | ● | ● | ○ | ○ | ○ | ○ | ○ | ○ |
|  | Comfortable access Now you no longer have to jerk doors open – all you need is one finger! | ○ | ○ | ○ | ● | ● | ● | ● | ● | ● |
|  | Self-closing door Doors left open accidentally are a thing of the past. | ○ | ○ | ○ | ● | ● | ● | ● | ● | ● |

● = Yes, ○ = No

LABEX® – for your safety.

The storage of your sensitive and highly flammable substances requires both precise and reliable cooling. Our specially for these requirements developed LABEX®-models meet highest safety standards established among the world's toughest testing standards of the TÜV-SÜD.



LABEX®-Standard Safety

Ex II 3 G T6

- Interior is free of ignition sources
- The temperature and defrosting sensors of the models with electronic control are specially protected by safety barriers
- Closed inner container: no connection to the engine room

LABEX®-Intrinsic Safety

Ex II 3 G Ex c ic IIB T6

In addition to LABEX®-Standard Safety:

- Forced-air cooling: The axial blower used for recirculating cooling is specially fuse-protected through a mains adapter
- Earthing of the entire interior
- Temperature documentation via RS485 or protected temperature sensors (optional)
- Prevent static charging by use of conductive interior, also conductive drawers

TÜV-certified explosion protection

KIRSCH Laboratory Refrigerators and Freezers (LABEX® and FROSTER-LABEX®) offer you TÜV-certified explosion protection and highest quality standards and safety requirements of the directive 94/9/EC (ATEX 95) EN 1127-1:1997 and BGR 120, Section 3.8, as well as to the EC Low Voltage Directive 2006/95/EC and electromagnetic compatibility (EMC) 2004/108/EC.

Intrinsic Safety – or quality characteristic.

All models with LABEX®-Intrinsic Safety are specifically designed for the storage of explosive materials. Our quality characteristic of intrinsic safety describes the following features:

- **intrinsically safe supply of the interior,** that means the components do not generate sparks.
- **special conduction concept for electric flows,** that may arise due to static charge (eg., operator).

Our quality and safety pledge:

All Labex®- and FROSTER-LABEX®-models are tested and certified on their quality and safety in accordance with the strict testing standards of TÜV-SÜD Product Service GmbH:



LABEX®-Standard Safety



LABEX®-Intrinsic Safety



Explanations of the marking according to directive 94/9/EG (ATEX 95)

The designation compliant with Directive 94/9/EC has the following structure:

- Special explosion-prevention symbol (Ex)
- Device group (in this case: II= devices not intended for mining)
- Category (in this case: 3= devices guarantee a normal level of safety)
- Type of explosive atmosphere (in this case: G= explosive mixtures of gas, vapour, mist, air)
- Design safety compliant with EN 13463-5
- Intrinsic safety compliant with EN 60079-11
- Explosion group (classification of vapour and gasses)
- Temperature class (in this case: T6= maximum surface temperature +85 °C)



Laboratory Refrigerators with explosion-proof interior

TÜV tested and certified.



LABEX®-105

Page 14



LABEX®-125

Page 16



LABEX®-285/-288

Page 18



LABEX®-335/-340

Page 20



LABEX®-465/-468

Page 22



LABEX®-520/-720

Page 24

1 drawer and 2 shelves

Standalone or undercounter
installation

Automatic defrosting

Key switch

Low-noise compressor

Visual and audible
alarm signal

Connection for forwarding
alarms and for PC-supported
temperature documentation

Digital temperature display

Minimum/maximum
temperature memory

Antifreeze



The **installation drawing** is available under www.kirsch-medical.com for each model in the download area.



Low-noise compressor

Reduces noise by 10 dB to 40 dB (corresponds to noise level I; sounds perception: whisper).



For your safety

Temperature sensors are protected by safety barriers.

LABEX®-105

Ex II 3 G T6



- **External housing** made from galvanised sheet steel (rust-proof), with white, anti-scratch powder coating. Length of the plug cable: approx. 1.8 m.
- **Adjustable feet** at the front to compensate uneven floors.
- **Interior** made from impact-resistant, white plastic with moulded-in shelves.
- **Interior consists** of one drawer with stops and two plastic-coated shelves. There is one adjustable length divider and six adjustable cross dividers per drawer. Storage surface per drawer = 0.13 m².
- **Extra-thick 50-mm insulation**, made from high-quality, compression-moulded and environmentally friendly material. Energy saving.
- **Lockable door** with easy-to-replace plastic magnetic seal frame.
- **Door hinge** on the right-hand side (by default, see illustration), or the left-hand side, can be retrofitted.
- **Automatic defrosting** with time limit and temperature monitoring. Defrost sensors are protected by safety barriers.
- **Removable condensation container.**
- **Key switch** protected control panel against tampering. Membrane keyboard with digital temperature display and minimum/maximum temperature memory. Control and display sensors protected by safety barriers.
- **Warning functions** with visual and audible alarm signal in the case of temperature deviations or other malfunctions.
- **Alarms** can be forwarded using a potential-free contact (e.g., to a mobile phone with optional GSM-Module or to a control centre).
- **RS485 interface** for connecting to PC-supported temperature documentation (using the optional KIRSCH-PC-KIT).
- **Antifreeze** against sub-zero temperatures.
- **Ventilation-enforced refrigerating machine**, hermetically sealed, energy saving, low-noise, easy to service.
- **Low-noise compressor** reduces noise by 10 dB to 40 dB (corresponds to noise level I; sound perception: whisper).

Specification

| | |
|---|--|
| Capacity | 95 litres |
| Temperature setting | approx. +2 °C to +20 °C |
| Voltage | 220 – 240V, 50/60 Hz |
| Power consumption | 150 watts |
| Normal consumption | 0.42 kWh/24 h |
| Admissible ambient temperature | from +10 °C to +38 °C |
| Heat emission (max.) | 220 watts |
| Overall dimensions (including distance from wall) | w x d x h = 54 x 54 x 82 cm |
| Interior dimensions | w x d x h = 44 x 43 x 47 cm (usable depth 5 cm, usable width 2 cm less) |
| Exterior dimensions with door open at 90° | w x d = 54 x 106 cm |
| Shelf size | w x d = 43 x 36 cm |
| Drawer inner dimensions | w x d x h = 40 x 32 x 5.6 cm |
| Max. load drawer/shelf | 13 kg/25 kg |
| Weight | Net weight 46 kg, gross weight 50 kg |

Optional equipment

- **Glass door** with lock.
- **Power failure alarm** (visual and audible alarm), the monitoring unit remains in operation for approx. 72 hours on battery power.
- **Tabletop** (exterior dimensions: 85 cm in height).
- **Decorative door frame** for attaching the customer's decorative plates (exterior dimensions: 55 cm in width).
- **Door fitting.**
- **Additional plastic drawer.**
- **Additional length and cross dividers** for drawer.
- **Additional shelf.**
- **GSM-Module** for alarm text message transmission (e.g., to a mobile phone).
- **Temperature documentation:** see detailed information on page 56.

Standalone or
undercounter installation

1 drawer and 2 shelves



Variable temperature selection

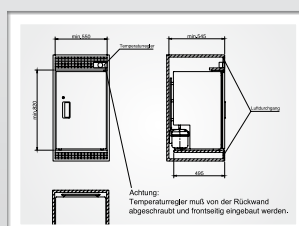


The **installation drawing** is available under www.kirsch-medical.com for each model in the download area.



Explosion protection

The interior is free from
ignition sources.



**Standalone or undercounter
installation** with a large inter-
ior.

LABEX®-125

Ex II 3 G T6



- **External housing** made from galvanised sheet steel (rust-proof), with white, anti-scratch powder coating. Length of plug cable: approx. 1.8 m.
- **Adjustable feet** at the front to compensate uneven floors.
- **Interior** made from impact-resistant, white plastic with moulded-in shelves.
- **Interior consists** of one plastic drawer with stops and two plastic-coated shelves. There is one adjustable length divider and six adjustable cross dividers per drawer. Storage surface per drawer = 0.13 m².
- **Extra-thick 50-mm insulation**, made from high-quality, compression-moulded and environmentally friendly material.
- **Lockable door** with easy-to-replace plastic magnetic seal frame.

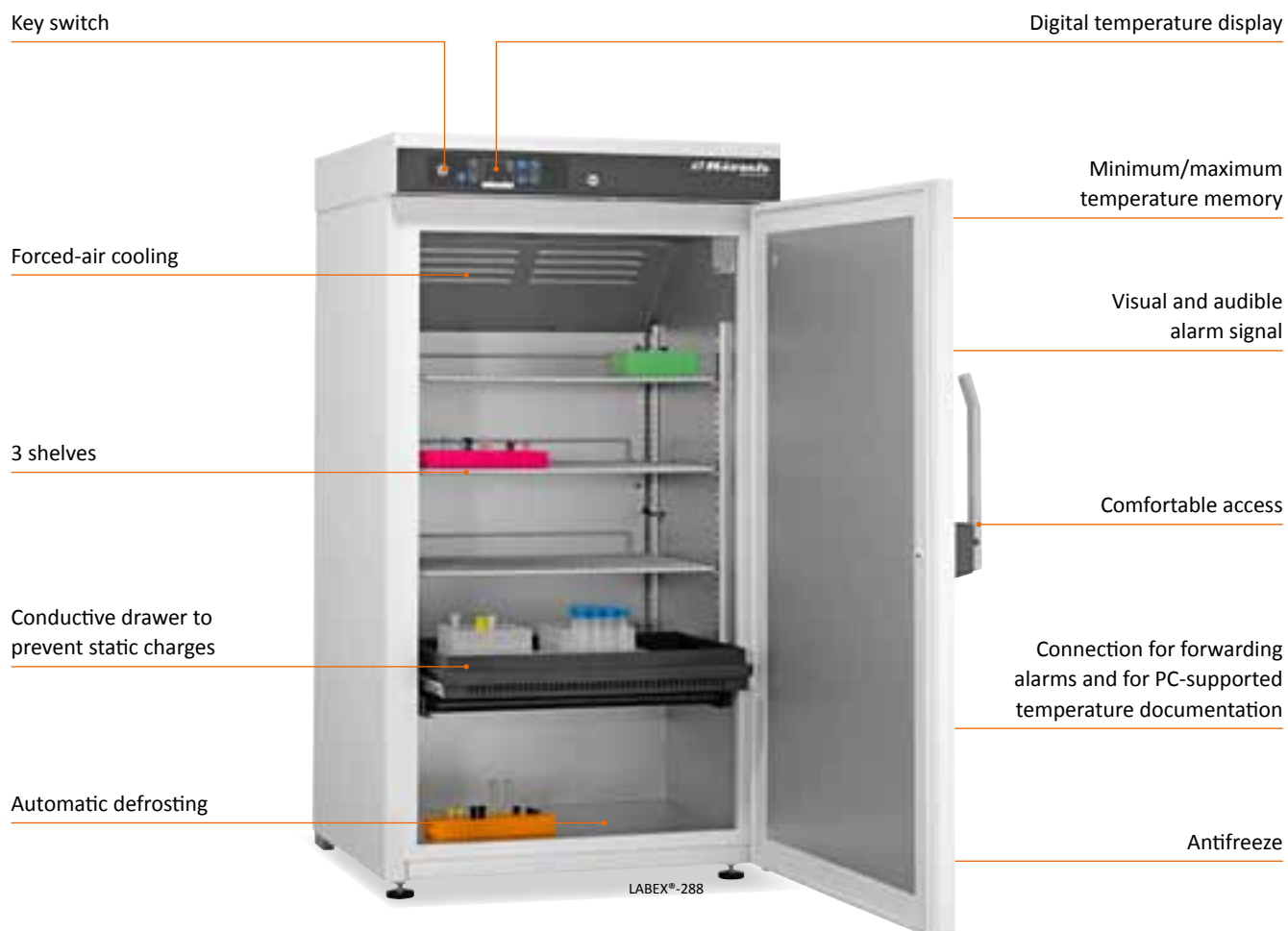
- **Door hinge** on the right-hand side (by default, see illustration), or the left-hand side, can be retrofitted.
- **Manual defrosting.**
- **Removable condensation container.**
- **Stepless temperature selection** by room thermostat. The temperature is kept automatically, independent of changing outside temperatures, provided that the ambient temperature is at least about 3 °C above the set temperature.
- **Statically ventilated refrigerating machine**, hermetically sealed, energy saving, low-noise, easy to service.

Specification

| | |
|--|--|
| Capacity | 120 litres |
| Temperature setting | approx. +2 °C to +20 °C |
| Voltage | 220 – 240 V, 50 Hz |
| Power consumption | 135 watts |
| Normal consumption | 0.68 kWh/24 h |
| Admissible ambient temperature | from +10 °C to +38 °C |
| Heat emission (max.) | 130 watts |
| Exterior dimensions (including distance from wall) | w x d x h = 54 x 54 x 81 cm |
| Interior dimensions | w x d x h = 44 x 42 x 67 cm (usable depth above: 5 cm, below: 15 cm less, usable width: 2 cm less) |
| Exterior dimensions with door open at 90° | w x d = 54 x 106 cm |
| Shelfsize | w x d = 43 x 33 cm (upper) w x d = 43 x 24 cm (lower) |
| Drawer inner dimensions | w x d x h = 40 x 32 x 5.6 cm |
| Max. load drawer/shelf | 13 kg/25 kg |
| Weight | Net weight 42 kg, gross weight 47 kg |

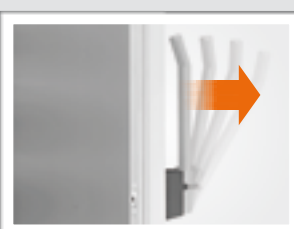
Optional equipment

- **Glass door.**
- **Tabletop** (exterior dimensions: 84 cm in height).
- **Decorative door frame** for attaching the customer's decorative plates (exterior dimensions: 55 cm in width).
- **Door fitting** (two pieces required).
- **Equipped with castors.**
- **Additional drawer.**
- **Additional length and cross dividers** for drawer.
- **Additional shelf.**
- **Refrigerating machine fan** if static ventilation is not sufficient after installation, or if 60 Hz operation is intended.
- **Temperature documentation:** see detailed information on page 56.



High temperature precision

The axial fan we use for forced-air cooling is specially protected through a mains adapter (LABEX®-288).



Comfortable access

The sophisticated opening mechanism makes the fitting even easier.

LABEX® -



285/-288 II 3 G Ex c ic IIB T6

- **External housing** made from galvanised sheet steel (rust-proof), with white, anti-scratch powder coating. Length of the plug cable: approx. 1.8 m.
- **Adjustable feet** at the front to compensate uneven floors.
- **Interior** made from smooth aluminium with colourless protective coating. Gibs (every 15 mm) for flexible interior arrangement.
- **Interior consists** of one drawer (conductive) with stops on roller runners and three height adjustable shelves on overlays. There are two adjustable length divider and nine adjustable cross dividers per drawer. Storage surface per drawer = 0.16 m².
- **Extra-thick 55-mm insulation**, made from high-quality, compression-moulded and environmentally friendly material. Energy saving.
- **Lockable door** with easy-to-replace plastic magnetic seal frame.
- **Door hinge** on the right-hand side (by default, see illustration), or the left-hand side, can be retrofitted.
- **Automatic defrosting** with time limit and temperature monitoring. Defrost sensors are protected by safety barriers.

- **Removable condensation container.**
- **Key switch** protected control panel against tampering. Membrane keyboard with digital temperature display and minimum/maximum temperature memory. Control and display sensors protected by safety barriers.
- **Warning functions** with visual and audible alarm signal in the case of temperature deviations or other malfunctions. Door open alarm after 60 seconds (only LABEX®-288).
- **Alarms** can be forwarded using a potential-free contact (e.g., to a mobile phone with optional GSM-Module or to a control centre).
- **RS485 interface** for connecting to PC-supported temperature documentation (using the optional KIRSCH-PC-KIT).
- **Antifreeze** against sub-zero temperatures.
- **Statically ventilated refrigerating machine**, hermetically sealed, energy saving, low-noise, easy to service.

*LABEX®-288 additional equipment:

- **Forced-air cooling** (axial fan is protected), switches off automatically when you open the door, ensures a uniform temperature and minimizes temperature deviations.

Specification

| | LABEX®-285 | LABEX®-288 |
|--|--------------------------------------|--------------------------------------|
| Capacity | 280 litres | 280 litres |
| Temperature setting | approx. +2 °C to +20 °C | approx. +2 °C to +20 °C |
| Voltage | 220 – 240 V, 50/60 Hz | 220 – 240 V, 50/60 Hz |
| Power consumption | 150 watts | 155 watts |
| Normal consumption | 0.80 kWh/24 h | 1.00 kWh/24 h |
| Admissible ambient temperature | from +10 °C to +38 °C | from +10 °C to +38 °C |
| Heat emission (max.) | 200 watts | 203 watts |
| Exterior dimensions (including door handle and distance from wall) | w x d x h = 67 x 70 x 124 cm | w x d x h = 67 x 70 x 124 cm |
| Interior dimensions | w x d x h =* 53 x 50 x 100 cm | w x d x h =* 53 x 50 x 100 cm |
| Exterior dimensions with door open at 90° | w x d = 67 x 130 cm | w x d = 67 x 130 cm |
| Shelfsize | w x d = 52 x 39 cm | w x d = 52 x 39 cm |
| Drawer inner dimensions | w x d x h = 50 x 32 x 5.6 cm | w x d x h = 50 x 32 x 5.6 cm |
| Max. load drawer/shelf | 16 kg/40 kg | 16 kg/40 kg |
| Weight | Net weight 68 kg, gross weight 80 kg | Net weight 72 kg, gross weight 85 kg |

*usable depth above: 9 cm, below: 13 cm less.

Optional equipment

- **Glass door with lock.**
- **Power failure alarm** (visual and audible alarm), the monitoring unit remains in operation for approx. 72 hours on battery power.
- **Decorative door frame** for attaching the customer's decorative plates.
- **Door fitting** (two pieces required).
- **Equipped with castors.**
- **Drawer on roller runners** (a maximum of seven drawers is possible).
- **Additional length and cross dividers** (for drawer).
- **Additional shelf** on rails or overlays.
- **GSM-Module** for alarm text message transmission (e.g., to a mobile phone).
- **Temperature documentation:** see detailed information on page 56.

Key switch

Digital temperature display

Minimum/maximum
temperature memory

Forced-air cooling

Visual and
audible alarm signal

Comfortable access

4 Shelves

2 conductive drawers to
prevent static charges

Connection for forwarding
alarms and for PC-supported
temperature documentation

Automatic defrosting

Antifreeze

LABEX®-340



Intrinsically safe

Use of conductive height adjustable drawers with adjustable interior.



Ventilation slit

Improve the refrigerating machine's ventilation and is easy to clean. It is now easier to integrate the system into a clean room or existing furniture.

LABEX® -



335/-340 II 3 G Ex c ic IIB T6

- **External housing** made from galvanised sheet steel (rust-proof), with white, anti-scratch powder coating. Length of the plug cable: approx. 1.8 m.
- **Adjustable feet** at the front to compensate uneven floors.
- **Interior** made from smooth aluminium with colourless protective coating. Gibs (every 15 mm) for flexible interior arrangement.
- **Interior consists** of two conductive drawers with stops on roller runners and four height adjustable shelves on overlays. There are two adjustable length divider and nine adjustable cross dividers per drawer. Storage surface per drawer = 0.16 m².
- **Extra-thick 55-mm insulation**, made from high-quality, compression-moulded and environmentally friendly material. Energy saving.
- **Self-closing door** with easy-to-replace plastic magnetic seal frame, lockable.
- **Door hinge** on the right-hand side (by default, see illustration), or the left-hand side, can be retrofitted.
- **Automatic defrosting** with time limit and temperature monitoring.
- **Removable condensation container.**

- **Key switch** protected control panel against tampering. Membrane keyboard with digital temperature display and minimum/maximum temperature memory. Control and display sensors protected by safety barriers.
- **Warning functions** with visual and audible alarm signal in the case of temperature deviations or other malfunctions. Door open alarm after 60 seconds (only LABEX®-340).
- **Alarms** can be forwarded using a potential-free contact (e.g., to a mobile phone with optional GSM-Module or to a control centre).
- **RS485 interface** for connecting to PC-supported temperature documentation (using the optional KIRSCH-PC-KIT).
- **Antifreeze** against sub-zero temperatures.
- **Statically ventilated refrigerating machine**, hermetically sealed, energy saving, low-noise, easy to service.

*LABEX®-340 additional equipment:

- **Forced-air cooling** (axial fan is protected), switches off automatically when you open the door, ensures a uniform temperature and minimizes temperature deviations.

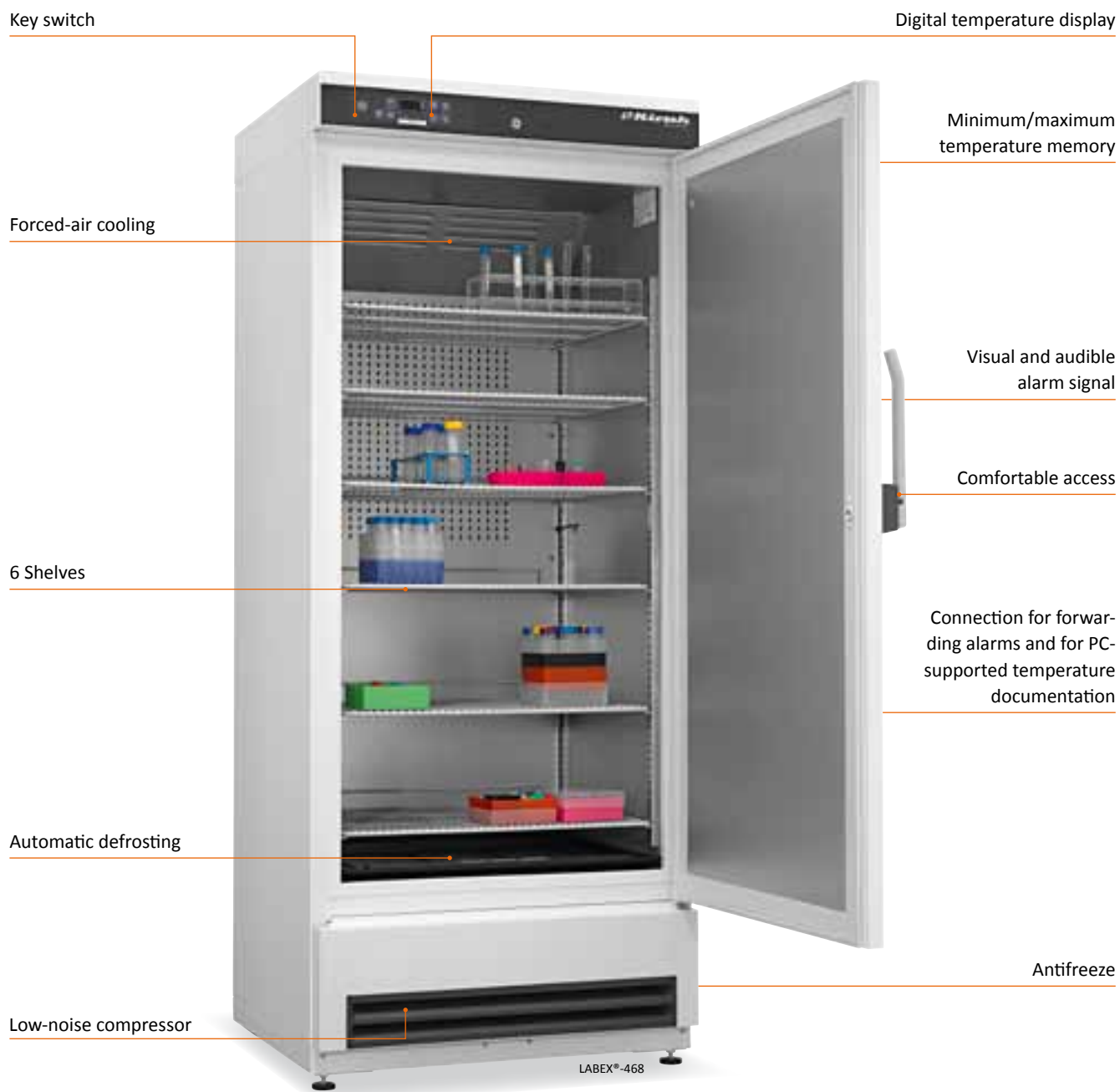
Specification

| | LABEX®-335 | LABEX®-340 |
|--|---------------------------------------|---------------------------------------|
| Capacity | 330 litres | 330 litres |
| Temperature setting | approx. +2 °C to +20 °C | approx. +2 °C to +20 °C |
| Voltage | 220 – 240 V, 50/60 Hz | 220 – 240 V, 50/60 Hz |
| Power consumption | 120 watts | 130 watts |
| Normal consumption | 0.90 kWh/24 h | 1.00 kWh/24 h |
| Admissible ambient temperature | from +10 °C to +38 °C | from +10 °C to +38 °C |
| Heat emission (max.) | 160 watts | 167 watts |
| Exterior dimensions (including door handle and distance from wall) | w x d x h = 67 x 63 x 181 cm | w x d x h = 67 x 63 x 181 cm |
| Interior dimensions | w x d x h =* 53 x 45 x 128 cm | w x d x h =* 53 x 45 x 128 cm |
| Exterior dimensions with door open at 90° | w x d = 67 x 121 cm | w x d = 67 x 121 cm |
| Shelfsize | w x d = 52 x 39 cm | w x d = 52 x 39 cm |
| Drawer inner dimensions | w x d x h = 50 x 32 x 5.6 cm | w x d x h = 50 x 32 x 5.6 cm |
| Max. load drawer/shelf | 16 kg/40 kg | 16 kg/40 kg |
| Weight | Net weight 90 kg, gross weight 102 kg | Net weight 93 kg, gross weight 105 kg |

*usable depth 5 cm less.

Optional equipment

- **Glass door with lock.**
- **Power failure alarm** (visual and audible alarm), the monitoring unit remains in operation for approx. 72 hours on battery power.
- **Decorative door frame** for attaching the customer's decorative plates.
- **Door fitting** (two pieces required).
- **Equipped with castors.**
- **Drawer on roller runners** (a maximum of eleven drawers is possible).
- **Additional length and cross dividers** (for drawer).
- **Additional shelf** on rails or overlays.
- **GSM-Module** for alarm text message transmission (e.g., to a mobile phone).
- **Temperature documentation:** see detailed information on page 56.



Low-noise compressor

Reduces noise by 10 dB to 40 dB (corresponds to noise level I; sounds perception: whisper).



Interior protected

Possible static charges are prevented by a dissipation system.

LABEX® -



465/-468 II 3 G Ex c ic IIB T6

- **External housing** made from galvanised sheet steel (rust-proof), with white, anti-scratch powder coating. Length of the plug cable: approx. 1.8 m.
- **Adjustable feet** at the front to compensate uneven floors.
- **Interior** made from smooth aluminium with colourless protective coating. Gibs (every 15 mm) for flexible interior arrangement.
- **Interior consists** of six shelves on overlays.
- **Extra-thick 55-mm insulation**, made from high-quality, compression-moulded and environmentally friendly material. Energy saving.
- **Self-closing door** with easy-to-replace plastic magnetic seal frame, lockable.
- **Door hinge** on the right-hand side (by default, see illustration), or the left-hand side, can be retrofitted.
- **Automatic defrosting** with time limit and temperature monitoring.
- **Removable condensation container.**
- **Key switch** protected control panel against tampering. Membrane keyboard with digital temperature display and minimum/maximum temperature memory. Control and display sensors protected by safety barriers.

- **Warning functions** with visual and audible alarm signal in the case of temperature deviations or other malfunctions. Door open alarm after 60 seconds (only LABEX®-468).
- **Alarms** can be forwarded using a potential-free contact (e.g., to a mobile phone with optional GSM-Module or to a control centre).
- **RS485 interface** for connecting to PC-supported temperature documentation (using the optional KIRSCH-PC-KIT).
- **Antifreeze** against sub-zero temperatures.
- **Ventilation-enforced refrigerating machine**, hermetically sealed, energy saving, low-noise, easy to service.
- **Low-noise compressor** reduces noise by 10 dB to 40 dB (corresponds to noise level I; sound perception: whisper).

*LABEX®-468 additional equipment:

- **Forced-air cooling** (axial fan is protected), switches off automatically when you open the door, ensures a uniform temperature and minimizes temperature deviations.

Specification

| | LABEX®-465 | LABEX®-468 |
|--|--|--|
| Capacity | 460 litres | 460 litres |
| Temperature setting | approx. +2 °C to +20 °C | approx. +2 °C to +20 °C |
| Voltage | 220 – 240 V, 50/60 Hz | 220 – 240 V, 50/60 Hz |
| Power consumption | 160 watts | 170 watts |
| Normal consumption | 0.85 kWh/24 h | 1.00 kWh/24 h |
| Admissible ambient temperature | from +10 °C to +38 °C | from +10 °C to +38 °C |
| Heat emission (max.) | 233 watts | 240 watts |
| Exterior dimensions (including door handle and distance from wall) | w x d x h = 74 x 75 x 181 cm | w x d x h = 74 x 75 x 181 cm |
| Interior dimensions | w x d x h =* 60 x 57 x 128 cm | w x d x h =* 60 x 57 x 128 cm |
| Exterior dimensions with door open at 90° | w x d = 74 x 139 cm | w x d = 74 x 139 cm |
| Shelfsize | w x d = 59 x 50 cm | w x d = 59 x 50 cm |
| Max. load shelf | 40 kg | 40 kg |
| Weight | Net weight 110 kg, gross weight 123 kg | Net weight 112 kg, gross weight 125 kg |

*usable depth 5 cm less.

Optional equipment

- **Glass door with lock.**
- **Power failure alarm** (visual and audible alarm), the monitoring unit remains in operation for approx. 72 hours on battery power.
- **Decorative door frame** for attaching the customer's decorative plates.
- **Door fitting** (two pieces required).
- **Equipped with castors.**
- **Drawer on roller runners** w x d x h = 57 x 43 x 5.6 cm (a maximum of eleven drawers is possible).
- **Additional length and cross dividers** (for drawer).
- **Additional shelf** on rails or overlays.
- **Basket on rails** w x d x h = 60 x 45 x 10 cm.
- **Aluminium tray** with rails w x d x h = 60 x 45 x 2.5 cm.
- **GSM-Module** for alarm text message transmission (e.g., to a mobile phone).
- **Temperature documentation:** see detailed information on page 56.

Key switch

Digital temperature display

Minimum/maximum
temperature memory

Forced-air cooling

Visual and audible
alarm signal

Comfortable access

Connection for forwarding
alarms and for PC-suppor-
ted temperature documen-
tation

5 Shelves

Automatic fast defros-
ting with removable
condensation container

Antifreeze

LABEX®-520



Interior protected

Possible static charges are prevented by a dissipation system.



Key switch

Protected control panel to avoid switching off the device by mistake resp. protection against unauthorised access.

LABEX® -

500 l /
700 l

+0 to
+20 °C



520/-720 II 3 G Ex c IIB T6

- **External housing** made from galvanised sheet steel (rust-proof), with white, anti-scratch powder coating. Length of the plug cable: approx. 3 m.
- **Adjustable feet** to compensate uneven floors.
- **Interior** made from smooth aluminium with colourless protective coating. Gibs (every 15 mm) for flexible interior arrangement.
- **Interior consists** of five shelves on brackets.
- **Extra-thick 70-mm insulation**, made from high-quality, compression-moulded and environmentally friendly material. Energy saving.
- **Self-closing door** with easy-to-replace plastic magnetic seal frame, lockable.
- **Door hinge** on the right-hand side as standard (see illustration), or the left-hand side, can be retrofitted.
- **Forced-air cooling** (axial fan is protected), switches off automatically when you open the door, ensures a uniform temperature and minimizes temperature deviations.
- **Valve controlled pressure compensation** for easier door opening.

- **Automatic fast defrosting** with time limit and temperature monitoring. Defrost sensors are protected by safety barriers.
- **Removable condensation container.**
- **Key switch** protected control panel against tampering. Membrane keyboard with digital temperature display and minimum/maximum temperature memory. Control and display sensors protected by safety barriers.
- **Warning functions** with visual and audible alarm signal in the case of temperature deviations or other malfunctions. Door open alarm after 60 seconds.
- **Alarms** can be forwarded using a potential-free contact (e.g., to a mobile phone with optional GSM-Module or to a control centre).
- **RS485 interface** for connecting to PC-supported temperature documentation (using the optional KIRSCH-PC-KIT).
- **Antifreeze** against sub-zero temperatures.
- **Ventilation-enforced refrigerating machine**, hermetically sealed, energy saving, low-noise, easy to service.

Specification

| | LABEX®-520 | LABEX®-720 |
|--|----------------------------------|----------------------------------|
| Capacity | 500 Liter | 700 Liter |
| Temperature setting | approx. +0 °C to +20 °C | approx. +0 °C to +20 °C |
| Voltage | 220 – 240 V, 50 Hz | 220 – 240 V, 50 Hz |
| Power consumption | 230 Watt | 230 Watt |
| Normal consumption | 2,0 kWh/24 h | 2,1 kWh/24 h |
| Admissible ambient temperature | from +10 °C to +38 °C | from +10 °C to +38 °C |
| Heat emission (max.) | 453 Watt | 453 Watt |
| Exterior dimensions (including door handle and distance from wall) | w x d x h = 77 x 76 x 193-196 cm | w x d x h = 77 x 98 x 193-196 cm |
| Interior dimensions | w x d x h = * 62 x 57 x 140 cm | w x d x h = * 62 x 77 x 140 cm |
| Exterior dimensions with door open at 90° | w x d = 77 x 144 cm | w x d = 77 x 165 cm |
| Shelfsize | w x d = 59 x 45 cm | w x d = 59 x 65 cm |
| Max. load shelf | 40 kg | 40 kg |
| Weight | netto 120 kg, brutto 150 kg | netto 145 kg, brutto 180 kg |

*usable width 2 cm, usable depth 11 cm, usable height 13 cm less.

Optional equipment

- **Glass door with lock.**
- **Power failure alarm** (visual and audible alarm), the monitoring unit remains in operation for approx. 72 hours on battery power.
- **Equipped with castors.**
- **Drawer conductive on roller runners**
Only for LABEX®-520: w x d x h = 57 x 39 x 5.6 cm (a maximum of twelve drawers is possible).
- **Additional length and cross dividers** (for drawer).
- **Additional shelf** on rails or brackets.
- **Basket on rails**
LABEX®-520: w x d x h = 60 x 45 x 10 cm,
LABEX®-720: w x d x h = 60 x 65 x 10 cm.
- **Aluminium tray with rails**
LABEX®-520: w x d x h = 60 x 40 x 2.5 cm,
LABEX®-720: w x d x h = 60 x 65 x 2.5 cm.
- **Outer housing in stainless steel 4301**, longitudinal brushed.
- **GSM-Module** for alarm text message transmission (e.g., to a mobile phone).
- **Water-cooled refrigerating machine.**
- **Temperature documentation**
see detailed information on page 56.



Laboratory Freezers with explosion-proof interior

Explosion protection and automatic fast defrosting: The protection against icing of the freezer often requires manual, time-consuming defrosting. Thanks to our exclusive automatic fast defrosting* you can use your valuable time effectively. Furthermore you can be sure that your explosive chilled goods have always the required storage temperature.

**FROSTER-LABEX®-70**

Page 28

**FROSTER-LABEX®-96**

Page 30

**FROSTER-LABEX®-330**

Page 32

**FROSTER-LABEX®-530/-730**

Page 34

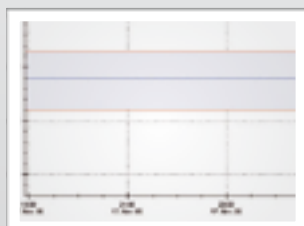
**Product name update**

The models FROSTER-LABEX®-320/-520/-720 now can be found under the following labels:

FROSTER-LABEX®-330 and FROSTER-LABEX®-530/-730.



The **installation drawing** is available under www.kirsch-medical.com for each model in the download area.



Constant temperature

Maintains the interior temperature (maximum: -22 °C) even in the case of greater ambient temperatures of up to +32 °C.



Suitable for integration

Compact freezer designed for the integration into furniture. Can also be used as a standalone device.

FROSTER-

LABEX®-70



- **External housing** made from galvanised sheet steel (rust-proof), with white, anti-scratch powder coating. Length of the plug cable: approx. 1.8 m.
- **Interior** made from impact-resistant, white plastic with moulded-in shelves.
- **Interior consists** of four plastic-coated shelves.
- **Extra-thick 55-mm insulation**, made from high-quality, compression-moulded and environmentally friendly material. Energy saving.
- **Lockable door** with easy-to-replace plastic magnetic seal frame.

- **Door hinge** on the right-hand side (by default, see illustration), or the left-hand side, can be retrofitted.
- **Manual defrosting.**
- **Mechanical controller** enables variable temperature control. The temperature is maintained automatically, irrespective of changing external temperatures, provided that the ambient temperature is at least approx. 3 °C above the set interior temperature.
- **Statically ventilated refrigerating machine**, hermetically sealed, energy saving, low-noise, easy to service.
- **Door frame heater** prevents icing of the door.

Specification

| | |
|--|--|
| Capacity | 70 litres |
| Temperature setting | approx. -15 °C to -22 °C |
| Voltage | 220 – 240 V, 50/60 Hz |
| Power consumption | 100 watts |
| Normal consumption | 1.6 kWh/24 h |
| Admissible ambient temperature | from +10 °C to +32 °C |
| Heat emission (max.) | 129 watts |
| Exterior dimensions (including distance from wall) | w x d x h = 47 x 51 x 74 cm |
| Interior dimensions | w x d x h = 35 x 41 x 55 cm (usable depth above: 9 cm, below: 20 cm less) |
| Exterior dimensions with door open at 90° | w x d = 47 x 96 cm |
| Shelfsize | w x d = 35 x 31 cm (upper), w x d = 35 x 20 cm (lower) |
| Max. load shelf | 25 kg |
| Weight | Net weight 34 kg, gross weight 42 kg |

Optional equipment

- **Decorative door frame** for attaching the customer's decorative plates.
- **Door fitting** (two pieces required).
- **Equipped with castors.**
- **Refrigerating machine fan:** required when the system is used as a built-in freezer if static ventilation is insufficient.
- **Temperature documentation:** see detailed information on page 56.

2 shelves

Standalone or undercounter
installation

Rapid freezing cycle

Door frame heater

Key switch

Digital temperature display



Connection for forwarding
alarms and for PC-supported
temperature documentation

Visual and audible
alarm signal

Minimum/maximum
temperature memory

Low-noise compressor



The **installation drawing** is available under www.kirsch-medical.com
for each model in the download area.



Low-noise compressor

Reduces noise by 10 dB to 40
dB (corresponds to noise level
I; sounds perception: whisper).



Explosion protection

The interior is free of ignition
sources.

FROSTER-

LABEX®-96



- **External housing** made from galvanised sheet steel (rust-proof), with white, anti-scratch powder coating. Length of the plug cable: approx. 1.8 m.
- **Adjustable feet** to compensate uneven floors.
- **Interior** made from impact-resistant, white plastic with moulded-in shelves.
- **Interior consists** of two plastic-coated shelves.
- **Extra-thick 50 mm energy saving insulation**, made from high-quality, compression-moulded and environmentally friendly material.
- **Lockable door** with easy-to-replace plastic magnetic seal frame.
- **Door hinge** on the right-hand side (by default, see illustration), or the left-hand side, can be retrofitted.
- **Manual defrosting.**
- **Removable condensation container.**
- **Key switch** protected control panel against tampering. Membrane keyboard with digital temperature display and minimum/maximum temperature memory. Control and display sensors protected by safety barriers.

- **Warning functions** with visual and audible alarm signal in the case of temperature deviations or other malfunctions.
- **Alarms** can be forwarded using a potential-free contact (e.g., to a mobile phone with optional GSM-Module or to a control centre).
- **RS485 interface** for connecting to PC-supported temperature documentation (using the optional KIRSCH-PC-KIT).
- **Rapid freezing cycle** ensures that the goods to be cooled are frozen quickly.
- **Ventilation-enforced refrigerating machine**, hermetically sealed, energy saving, low-noise, easy to service. Inlet air and exhaust air flow through the ventilation slits at the front.
- **Door frame heater** prevents icing of the door.
- **Low-noise compressor** reduces noise by 10 dB to 40 dB (corresponds to noise level I; sound perception: whisper).

Specification

| | |
|--|---|
| Capacity | 95 litres |
| Temperature setting | approx. -5 °C to -25 °C |
| Voltage | 220 - 240 V, 50/60 Hz |
| Power consumption | 160 watts |
| Normal consumption | 2.6 kWh/24 h |
| Admissible ambient temperature | from +10 °C to +32 °C |
| Heat emission (max.) | 191 watts |
| Exterior dimensions (including distance from wall) | w x d x h = 54 x 54 x 82 cm |
| Interior dimensions | w x d x h = 44 x 42 x 47 cm (usable depth 5 cm, usable width 2 cm less) |
| Exterior dimensions with door open at 90° | w x d = 54 x 106 cm |
| Shelf size | w x d = 43 x 36 cm |
| Max. load shelf | 25 kg |
| Weight | Net weight 42 kg, gross weight 50 kg |

Optional equipment

- **Power failure alarm** (visual and audible alarm), the monitoring unit remains in operation for approx. 72 hours on battery power.
- **Tabletop** (exterior dimensions: 85 cm in height).
- **Decorative door frame** for attaching the customer's decorative plates.
- **Door fitting** (two pieces required).
- **Equipped with castors.**
- **Additional plastic drawer** w x d x h = 40 x 32 x 5.6 cm
- **Additional length and cross dividers** for drawer.
- **Additional shelf.**
- **GSM-Module** for alarm text message transmission (e.g., to a mobile phone).
- **Temperature documentation:** see detailed information on page 56.

Digital temperature display

Key switch

Forced-air cooling

4 shelves

Rapid freezing cycle

Door frame heater

Automatic fast defrosting

Minimum/maximum
temperature memory

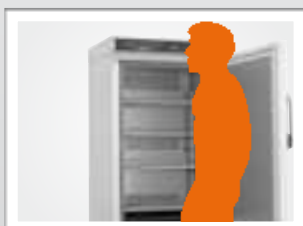
Visual and audible
alarm signal

Comfortable access

Connection for forwarding
alarms and for PC-supported
temperature documentation



Unique combination of ATEX-mark  II 3 G Ex c IIB T6, forced-air cooling, automatic fast defrosting and controlled pressure equalization.



Display at eye-level

The display is positioned at eye-level to make it easier to read and simplify operation.

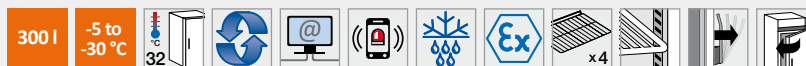


Self-closing door

Doors left open accidentally are thing of the past.

FROSTER- LABEX®-330

Ex II 3 G Ex c ic IIB T6



- **External housing** made from galvanised sheet steel (rust-proof), with white, anti-scratch powder coating. Length of the plug cable: approx. 1.8 m.
- **Adjustable feet** to compensate uneven floors.
- **Interior** made from smooth aluminium with colourless protective coating. Gibs (every 15 mm) for flexible interior arrangement.
- **Interior consists** of four plastic-coated shelves on overlays.
- **Extra-thick 70 mm energy saving insulation**, made from high-quality, compression-moulded and environmentally friendly material.
- **Self-closing door** with easy-to-replace plastic magnetic seal frame, lockable.
- **Door hinge** on the right-hand side (by default, see illustration), or the left-hand side, can be retrofitted.
- **Forced-air cooling** (axial fan is protected), switches off automatically when you open the door, ensures a uniform temperature and minimizes temperature deviations.
- **Valve controlled pressure compensation** for easier door opening.
- **Automatic fast defrosting** thanks to time-limited and temperature-monitored reversal of the refrigerant circuit.

Defrost sensors are protected by safety barriers.

- **Removable condensation container.**
- **Key switch** protected control panel against tampering. Membrane keyboard with digital temperature display and minimum/maximum temperature memory. Control and display sensors protected by safety barriers.
- **Warning functions** with visual and audible alarm signal in the case of temperature deviations or other malfunctions. Door open alarm after 60 seconds.
- **Alarms** can be forwarded using a potential-free contact (e.g., to a mobile phone with optional GSM-Module or to a control centre).
- **RS485 interface** for connecting to PC-supported temperature documentation (using the optional KIRSCH-PC-KIT).
- **Rapid freezing cycle** ensures that the goods to be cooled are frozen quickly.
- **Ventilation-enforced refrigerating machine**, hermetically sealed, energy saving, low-noise, easy to service. Inlet air and exhaust air flow through the ventilation slits at the front.
- **Door frame heater** prevents icing of the door.

Specification

| | |
|--|---|
| Capacity | 300 litres |
| Temperature setting | approx. -5 °C to -30 °C |
| Voltage | 220 – 240 V, 50 Hz |
| Power consumption | 577 watts |
| Normal consumption | 3.98 kWh/24 h |
| Admissible ambient temperature | from +10 °C to +32 °C |
| Heat emission (max.) | 711 watts |
| Exterior dimensions (including distance from wall and door handle) | w x d x h = 74 x 78 x 159 cm |
| Interior dimensions | w x d x h = 59 x 52 x 95 cm (usable width 2 cm, usable depth 5 cm, usable height 13 cm less) |
| Exterior dimensions with door open at 90° | w x d = 74 x 142 cm |
| Shelf size | w x d = 57 x 42 cm |
| Max. load shelf | 40 kg |
| Weight | Net weight 120 kg, gross weight 135 kg |

Optional equipment

- **Power failure alarm** (visual and audible alarm), the monitoring unit remains in operation for approx. 72 hours on battery power.
- **Decorative door frame** for attaching the customer's decorative plates.
- **Equipped with castors.**
- **GSM-Module** for alarm text message transmission (e.g., to a mobile phone).
- **Temperature documentation:** see detailed information on page 56.



Unique combination of ATEX-mark  II 3 G Ex c IIB T6, forced-air cooling, automatic fast defrosting and controlled pressure equalization.



Forced-air cooling

High temperature precision by protected circulation fan.

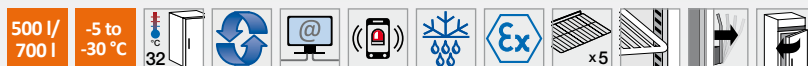


Easy door opening

By the controlled pressure equalization anytime a repeated opening of the door is ensured.

FROSTER-

LABEX®-530/-730



- **External housing** made from galvanised sheet steel (rust-proof), with white, anti-scratch powder coating. Length of the plug cable: approx. 3 m.
- **Adjustable feet** to compensate uneven floors.
- **Interior** made from smooth aluminium with colourless protective coating. Gibs (every 15mm) for flexible interior arrangement.
- **Interior consists** of five plastic-coated shelves on overlays.
- **Extra-thick 70 mm energy saving insulation**, made from high-quality, compression-moulded and environmentally friendly material.
- **Self-closing door** with easy-to-replace plastic magnetic seal frame, lockable.
- **Door hinge** on the right-hand side (by default, see illustration), or the left-hand side, can be retrofitted.
- **Forced-air cooling** (the two axial fans are protected), switches off automatically when you open the door, ensures a uniform temperature and minimizes temperature deviations.
- **Valve controlled pressure compensation** for easier door opening.
- **Automatic fast defrosting** thanks to time-limited and temperature-monitored reversal of the refrigerant circuit. Defrost sensors are protected by safety barriers.
- **Removable condensation container.**
- **Key switch** protected control panel against tampering. Membrane keyboard with digital temperature display and minimum/maximum temperature memory. Control and display sensors protected by safety barriers.
- **Warning functions** with visual and audible alarm signal in the case of temperature deviations or other malfunctions. Door open alarm after 60 seconds.
- **Alarms** can be forwarded using a potential-free contact (e.g., to a mobile phone with optional GSM-Module or to a control centre).
- **RS485 interface** for connecting to PC-supported temperature documentation (using the optional KIRSCH-PC-KIT).
- **Rapid freezing cycle** ensures that the goods to be cooled are frozen quickly.
- **Ventilation-enforced refrigerating machine**, hermetically sealed, energy saving, low-noise, easy to service.
- **Door frame heater** prevents icing of the door.

Specification

| | FROSTER-LABEX®-530 | FROSTER-LABEX®-730 |
|--|--|--|
| Capacity | 500 litres | 700 litres |
| Temperature setting | approx. -5 °C to -30 °C | approx. -5 °C to -30 °C |
| Voltage | 220 – 240 V, 50 Hz | 220 – 240 V, 50 Hz |
| Power consumption | 510 watts | 510 watts |
| Normal consumption | 4.70 kWh/24 h | 5.70 kWh/24 h |
| Admissible ambient temperature | from +10 °C to +32 °C | from +10 °C to +32 °C |
| Heat emission (max.) | 690 watts | 690 watts |
| Exterior dimensions (including distance from wall and door handle) | w x d x h = 77 x 76 x 193-196 cm | w x d x h = 77 x 98 x 193-196 cm |
| Interior dimensions | w x d x h =* 62 x 57 x 140 cm | w x d x h =* 62 x 77 x 140 cm |
| Exterior dimensions with door open at 90° | w x d = 77 x 144 cm | w x d = 77 x 166 cm |
| Shelf size | w x d = 59 x 45 cm | w x d = 59 x 65 cm |
| Max. load shelf | 40 kg | 40 kg |
| Weight | Net weight 140 kg, gross weight 170 kg | Net weight 165 kg, gross weight 200 kg |

*usable width 2 cm, usable depth 11 cm, usable height 13 cm less.

Optional equipment

- **Power failure alarm** (visual and audible alarm), the monitoring unit remains in operation for approx. 72 hours on battery power.
- **Decorative door frame** for attaching the customer's decorative plates.
- **Equipped with castors.**
- **Cooling machine water-cooled.**
- **Outer housing in stainless steel 4301**, longitudinal brushed.
- **Plastic-drawer on roller runners**, conductive (only FROSTER-LABEX®-530) w x d x h = 57 x 39 x 5.6 cm (a maximum of twelve drawers is possible).
- **Additional length and cross dividers** for the drawer (only FROSTER-LABEX®-530).
- **Additional shelf** on rails or overlays.
- **Basket**
FROSTER-LABEX®-530: w x d x h = 60 x 45 x 10 cm, FROSTER-LABEX®-730: w x d x h = 60 x 65 x 10 cm, each with rails.
- **Aluminium tray**
FROSTER-LABEX®-530: w x d x h = 60 x 40 x 2.5 cm, FROSTER-LABEX®-730: w x d x h = 60 x 65 x 2.5 cm, each with rails.
- **GSM-Module** for alarm text message transmission (e.g., to a mobile phone).
- **Temperature documentation:** see detailed information on page 56.



Laboratory Refrigerators without explosion-proof interior

Temperature stability and uniform temperature distribution: Each KIRSCH Laboratory Refrigerator is robust, reliable and provides optimal conditions for storing your sensitive goods.



LABO-85

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LABO-100

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LABO-125

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LABO-340/-468

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LABO-520/-720

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LABO-720-CHROMAT

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Product name update

The models SPEZIAL-340/-468, SUPER-520/-720 and SUPER-720-CHROMAT now can be found under the following labels:

LABO-340/-468, LABO-520/-720 and LABO-720-CHROMAT.



The **installation drawing** is available under www.kirsch-medical.com for each model in the download area.



Suitable for integration

Compact freezer designed for the integration into furniture. Can also be used as a standalone device.



Variable stock options

due to standard drawer with length and cross dividers and shelves.

LABO-85



- **External housing** made from galvanised sheet steel (rust-proof), with white, anti-scratch powder coating. Length of the plug cable: approx. 1.8 m.
- **Interior** made from impact-resistant, white plastic with moulded-in shelves.
- **Interior consists** of one drawer with stops and two plastic-coated shelves. There is one adjustable length divider and six adjustable cross dividers per drawer. Storage surface per drawer = 0.11 m².
- **Extra-thick 42 mm energy saving insulation**, made from high-quality, compression-moulded and environmentally friendly material.
- **Lockable door** with easy-to-replace plastic magnetic seal frame.

- **Door hinge** on the right-hand side (by default, see illustration), or the left-hand side, can be retrofitted.
- **Automatic defrosting** with time and temperature monitoring.
- **Condensate evaporates** in the refrigerating machine interior.
- **Mechanical controller** enables variable temperature control. The temperature is maintained automatically, irrespective of changing external temperatures, provided that the ambient temperature is at least approx. 3 °C above the set interior temperature.
- **Statically ventilated refrigerating machine**, hermetically sealed, energy saving, low-noise, easy to service.

Specification

| | |
|---|--|
| Capacity | 80 litres |
| Temperature setting | approx. +2 °C to +12 °C |
| Voltage | 220 - 240 V, 50 Hz |
| Power consumption | 100 watts |
| Normal consumption | 0.60 kWh/24 h |
| Admissible ambient temperature | from +10 °C to +38 °C |
| Heat emission (max.) | 107 watts |
| Overall dimensions (including distance from wall) | w x d x h = 47 x 51 x 74 cm |
| Interior dimensions | w x d x h = 38 x 41 x 63 cm (Usable depth above: 5 cm, below: 15 cm less) |
| Exterior dimensions with door open at 90° | w x d = 47 x 96 cm |
| Shelf size | w x d = 23 x 37 cm |
| Drawer inner dimensions | w x d x h = 34 x 32 x 5.6 cm |
| Max. load drawer/shelf | 9.5 kg/25 kg |
| Weight | Net weight 31 kg, gross weight 37 kg |

Optional equipment

- **Decorative door frame** for attaching the customer's decorative plates (exterior dimensions: 48cm in width).
- **Door fitting.**
- **Equipped with castors.**
- **Additional plastic drawer.**
- **Additional length and cross dividers.**
- **Top drawer can be locked.**
- **Condensate container** can be emptied manually if no condensation is required (e.g., in an operating theatre).
- **Refrigerating machine fan** if static ventilation is not sufficient after installation, or if 60 Hz operation is intended.
- **GSM-Module** for alarm text message transmission (e.g., to a mobile phone).
- **Temperature documentation:** see detailed information on page 56.

Standalone or undercounter installation

Forced-air cooling

Connection for forwarding alarms and for PC-supported temperature documentation

Antifreeze

2 shelves

Visual and audible alarm signal

Automatic defrosting

Key switch

Digital temperature display

Minimum/maximum temperature memory

Condensate evaporation

Low-noise compressor

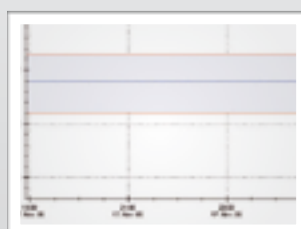


The **installation drawing** is available under www.kirsch-medical.com for each model in the download area.



Low-noise compressor

Reduces noise by 10 dB to 40 dB (corresponds to noise level I; sounds perception: whisper).



High temperature precision

even when installed powerful and ventilated refrigerator by forced-air cooling.

LABO-100



- **External housing** made from galvanised sheet steel (rust-proof), with white, anti-scratch powder coating. Length of the plug cable: approx. 1.8 m.
- **Adjustable feet** to compensate uneven floors.
- **Interior** made from impact-resistant, white plastic with moulded-in shelves.
- **Interior consists** of two plastic-coated shelves.
- **Extra-thick 50 mm energy saving insulation**, made from high-quality, compression-moulded and environmentally friendly material.
- **Lockable door** with easy-to-replace plastic magnetic seal frame.
- **Door hinge** on the right-hand side (by default, see illustration), or the left-hand side, can be retrofitted.
- **Forced-air cooling** with axial fan, switches off automatically when you open the door, ensures a uniform temperature and minimizes temperature deviations.
- **Automatic defrosting** with time and temperature monitoring.

- **Condensate evaporates** in the refrigerating machine interior.
- **Key switch** protected control panel against tampering. Membrane keyboard with digital temperature display and minimum/maximum temperature memory.
- **Warning functions** with visual and audible alarm signal in the case of temperature deviations or other malfunctions. Door open alarm after 60 seconds.
- **Alarms** can be forwarded using a potential-free contact (e.g., to a mobile phone with optional GSM-Module or to a control centre).
- **RS485 interface** for connecting to PC-supported temperature documentation (using the optional KIRSCH-PC-KIT).
- **Antifreeze** against sub-zero temperatures.
- **Ventilation-enforced refrigerating machine**, hermetically sealed, energy saving, low-noise, easy to service.
- **Low-noise compressor** reduces noise by 10 dB to 40 dB (corresponds to noise level I; sound perception: whisper).


Specification

| | |
|---|---|
| Capacity | 95 litres |
| Temperature setting | approx. +2 °C to +20 °C |
| Voltage | 220 – 240 V, 50/60 Hz |
| Power consumption | 160 watts |
| Normal consumption | 0.65 kWh/24 h |
| Admissible ambient temperature | from +10 °C to +38 °C |
| Heat emission (max.) | 220 watts |
| Overall dimensions (including distance from wall) | w x d x h = 54 x 54 x 82 cm |
| Interior dimensions | w x d x h = 44 x 43 x 47 cm (usable depth 5 cm, usable width 2 cm less) |
| Exterior dimensions with door open at 90° | w x d = 54 x 106 cm |
| Shelf size | w x d = 43 x 33 cm |
| Max. load shelf | 25 kg |
| Weight | Net weight 46 kg, gross weight 50 kg |

Optional equipment

- **Glass door** with lock.
- **Power failure alarm** (visual and audible alarm), the monitoring unit remains in operation for approx. 72 hours on battery power.
- **Tabletop** (exterior dimensions: 85cm in height).
- **Decorative door frame** for attaching the customer's decorative plates (exterior dimensions: 55cm in width).
- **Door fitting.**
- **Equipped with castors.**
- **Additional plastic drawer** w x d x h = 40 x 32 x 5.6 cm.
- **Additional length and cross dividers** for drawer.
- **Additional shelf.**
- **Condensate container** can be emptied manually if no condensation is required (e.g., in an operating theatre).
- **GSM-Module** for alarm text message transmission (e.g., to a mobile phone).
- **Temperature documentation:** see detailed information on page 56.



 The **installation drawing** is available under www.kirsch-medical.com for each model in the download area.



Automatic defrosting and condensate evaporation

Time limit and temperature monitoring. No manual defrosting required. Condensate evaporates in the refrigerating machine room.



User friendly

Electronic temperature controller can be installed into furniture front.

LABO-125



- **External housing** made from galvanised sheet steel (rust-proof), with white, anti-scratch powder coating. Length of the plug cable: approx. 1.8 m.
- **Adjustable feet** to compensate uneven floors.
- **Interior** made from impact-resistant, white plastic with moulded-in shelves.
- **Interior consists** of two plastic-coated shelves.
- **Extra-thick 50 mm energy saving insulation**, made from high-quality, compression-moulded and environmentally friendly material.
- **Lockable door** with easy-to-replace plastic magnetic seal frame.

- **Door hinge** on the right-hand side (by default, see illustration), or the left-hand side, can be retrofitted.
- **Automatic defrosting** with time and temperature monitoring.
- **Condensate evaporates** in the refrigerating machine interior.
- **Membrane keyboard** with digital temperature display.
- **Warning functions** with visual and audible alarm signal in the case of temperature deviations.
- **Statically ventilated refrigerating machine**, hermetically sealed, energy saving, low-noise, easy to service.

Specification

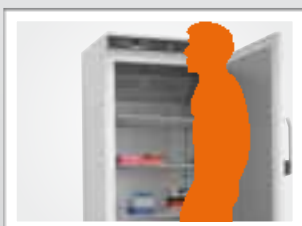
| | |
|---|---|
| Capacity | 120 litres |
| Temperature setting | approx. +2 °C to +20 °C |
| Voltage | 220 – 240 V, 50 Hz |
| Power consumption | 135 watts |
| Normal consumption | 0.68 kWh/24 h |
| Admissible ambient temperature | from +10 °C to +38 °C |
| Heat emission (max.) | 130 watts |
| Overall dimensions (including distance from wall) | w x d x h = 54 x 54 x 81 cm |
| Interior dimensions | w x d x h = 44 x 42 x 67 cm (usable depth above: 5 cm, below: 15 cm less, usable width: 2 cm less) |
| Exterior dimensions with door open at 90° | w x d = 54 x 106 cm |
| Shelf size | w x d = 43 x 33 cm |
| Max. load shelf | 25 kg |
| Weight | Net weight 42 kg, gross weight 47 kg |

Optional equipment

- **Glass door.**
- **Tabletop** (exterior dimensions: 84cm in height).
- **Decorative door frame** for attaching the customer's decorative plates (exterior dimensions: 55cm in width).
- **Door fitting.**
- **Equipped with castors.**
- **Additional plastic drawer**
w x d x h = 40 x 32 x 5.6 cm.
- **Additional length and cross dividers** for drawer.
- **Additional shelf.**
- **Condensate container** can be emptied manually if no condensation is required (e.g., in an operating theatre).
- **Refrigerating machine fan** if static ventilation is not sufficient after installation, or if 60 Hz operation is intended.
- **Digital temperature display:** optional for external installation into furniture front.
- **Terminal for remote maintenance.** Alarms can be forwarded using a potential-free contact (e.g., to a mobile phone with optional GSM-Module or to a control centre).
- **GSM-Module** for alarm text message transmission (e.g., to a mobile phone).
- **Temperature documentation:** see detailed information on page 56.



LABO-468 is equipped with four plastic-coated shelves on overlays.



Display at eye-level

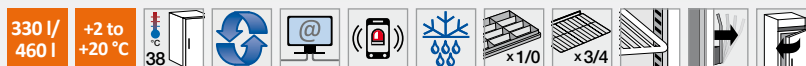
The display is positioned at eye-level to make it easier to read and simplify operation.



Optimized air guide plate

The optimized air guide plate reduces temperature deviations inside the system to a minimum.

LABO- 340/-468



- **External housing** made from galvanised sheet steel (rust-proof), with white, anti-scratch powder coating. Length of the plug cable: approx. 1.8 m.
- **Adjustable feet** to compensate uneven floors.
- **Interior** made from smooth aluminium with colourless protective coating. Gills (every 15 mm) for flexible interior arrangement.
- **Interior** of LABO-340 consists of one drawer and three plastic-coated shelves on overlays. Interior of LABO-468 consists of four plastic-coated shelves on overlays.
- **Extra-thick 55 mm energy saving insulation**, made from high-quality, compression-moulded and environmentally friendly material.
- **Self-closing door** with easy-to-replace plastic magnetic seal frame, lockable.
- **Door hinge** on the right-hand side (by default, see illustration), or the left-hand side, can be retrofitted.
- **Forced-air cooling** with cross-flow blower, switches off automatically when you open the door, ensures a uniform temperature and minimizes temperature deviation.

- **Automatic defrosting** with time limit and temperature monitoring.
- **Condensate evaporates** in the refrigerating machine interior.
- **Key switch** protected control panel against tampering. Membrane keyboard with digital temperature display and minimum/maximum temperature memory.
- **Warning functions** with visual and audible alarm signal in the case of temperature deviations or other malfunctions. Door open alarm after 60 seconds.
- **Alarms** can be forwarded using a potential-free contact (e.g., to a mobile phone with optional GSM-Module or to a control centre).
- **RS485 interface** for connecting to PC-supported temperature documentation (using the optional KIRSCH-PC-KIT).
- **Antifreeze** against sub-zero temperatures.
- **Statically ventilated** (LABO-340) or **ventilation-enforced** (LABO-468) refrigerating machine, hermetically sealed, energy saving, low-noise, easy to service.
- **Low-noise compressor** (only LABO-468) reduces noise by 10 dB to 40 dB (corresponds to noise level I; sound perception: whisper).

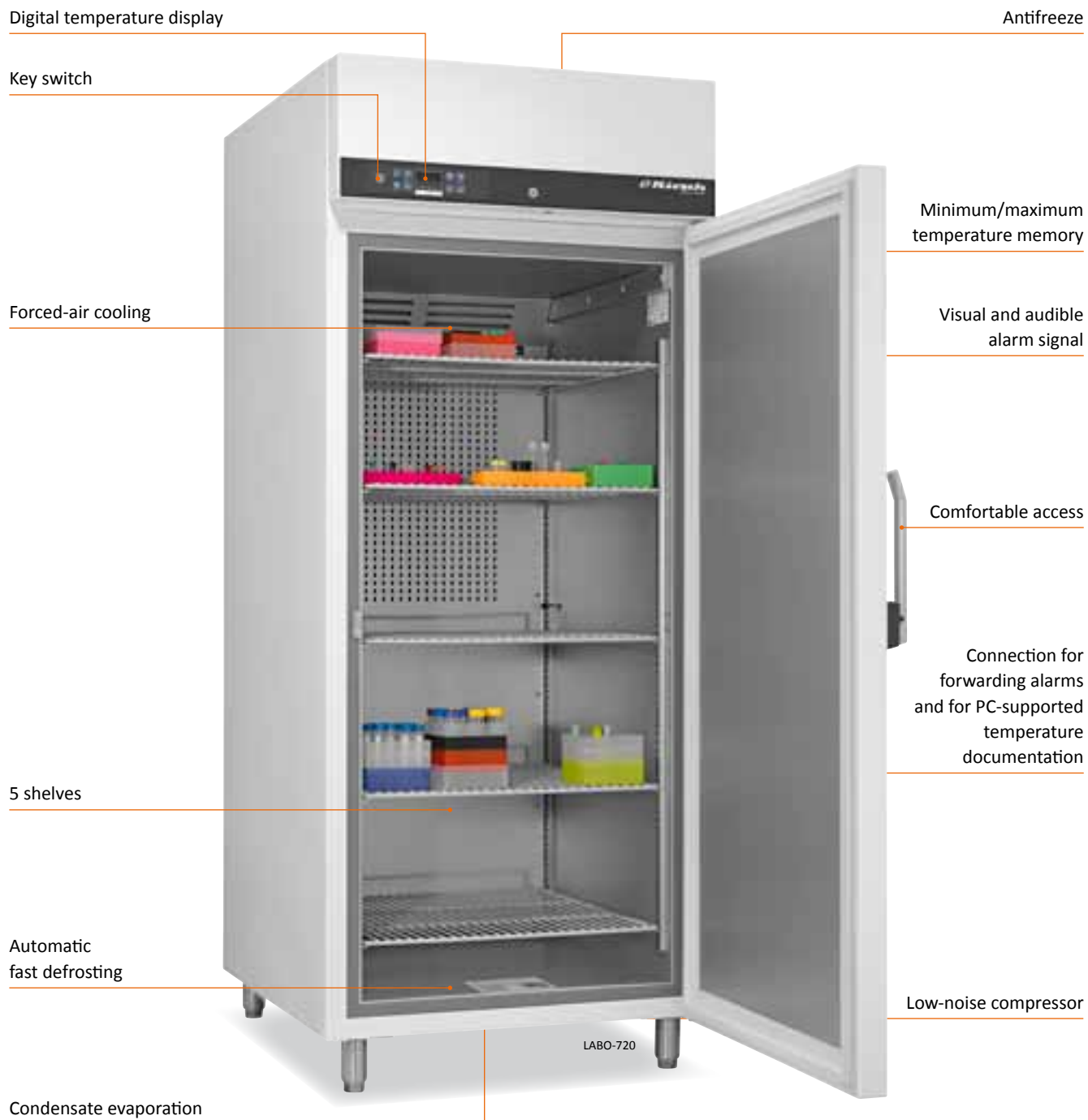
Specification

| | LABO-340 | LABO-468 |
|--|---------------------------------------|--|
| Capacity | 330 litres | 460 litres |
| Temperature setting | approx. +2 °C to +20 °C | approx. +2 °C to +20 °C |
| Voltage | 220 – 240 V, 50/60 Hz | 220 – 240 V, 50/60 Hz |
| Power consumption | 150 watts | 180 watts |
| Normal consumption | 1.47 kWh/24 h | 1.40 kWh/24 h |
| Admissible ambient temperature | from +10 °C to +38 °C | from +10 °C to +38 °C |
| Heat emission (max.) | 180 watts | 247 watts |
| Exterior dimensions (including door handle and distance from wall) | w x d x h = 67 x 63 x 181 cm | w x d x h = 74 x 75 x 181 cm |
| Interior dimensions | w x d x h =* 53 x 45 x 128 cm | w x d x h =* 60 x 57 x 128 cm |
| Exterior dimensions with door open at 90° | w x d = 67 x 121 cm | w x d = 74 x 139 cm |
| Shelf size | w x d = 52 x 39 cm | w x d = 59 x 50 cm |
| Drawer inner dimensions | w x d x h = 50 x 32 x 5.6 cm | – |
| Max. load drawer/ shelf | 16 kg/40 kg | –/40 kg |
| Weight | Net weight 88 kg, gross weight 100 kg | Net weight 109 kg, gross weight 122 kg |

*usable depth 5 cm less.

Optional equipment

- **Glass door** with lock.
- **LED-Illumination** mounted on side wall.
- **Power failure alarm** (visual and audible alarm), the monitoring unit remains in operation for approx. 72 hours on battery power.
- **Decorative door frame** for attaching the customer's decorative plates.
- **Door fitting.**
- **Equipped with castors.**
- **Condensate container** can be emptied manually if no condensation is required (e.g., in an operating theatre).
- **Plastic drawer on roller runners**
LABO-340: w x d x h = 50 x 32 x 5.6 cm,
LABO-468: w x d x h = 57 x 43 x 5.6 cm
(a maximum of twelve drawers is possible).
- **Additional length and cross dividers.**
- **Additional shelf** on rails or overlays.
- **Basket** on rails (only for LABO-468)
w x d x h = 60 x 45 x 10 cm.
- **Aluminium tray** with rails (only for LABO-468)
w x d x h = 60 x 40 x 2.5 cm.
- **GSM-Module** for alarm text message transmission.
- **Temperature documentation:**
see detailed information on page 56.



Low-noise compressor

Reduces noise by 10 dB to 40 dB (corresponds to noise level I; sounds perception: whisper).



Fast defrosting

Fast defrosting significantly reduces defrosting periods with minimal temperature variations.

LABO- 520/-720



- **External housing** made from galvanised sheet steel (rust-proof), with white, anti-scratch powder coating. Length of the plug cable: approx. 3 m.
- **Adjustable feet** to compensate uneven floors.
- **Interior** made from smooth aluminium with colourless protective coating. Gibs (every 15mm) for flexible interior arrangement.
- **Interior consists** of five plastic-coated shelves on overlays.
- **Extra-thick 70 mm energy saving insulation**, made from high-quality, compression-moulded and environmentally friendly material.
- **Self-closing door** with easy-to-replace plastic magnetic seal frame, lockable.
- **Door hinge** on the right-hand side (by default, see illustration), or the left-hand side, can be retrofitted.
- **Forced-air cooling** with cross-flow blower, switches off automatically when you open the door, ensures a uniform temperature and minimizes temperature deviations.

- **Automatic fast defrosting** thanks to time-limited and temperature-monitored reversal of the refrigerant circuit.
- **Condensate evaporates** in stainless steel heated dish beneath the refrigerator floor.
- **Key switch** protected control panel against tampering. Membrane keyboard with digital temperature display and minimum/maximum temperature memory.
- **Warning functions** with visual and audible alarm signal in the case of temperature deviations or other malfunctions. Door open alarm after 60 seconds.
- **Alarms can be forwarded** using a potential-free contact (e.g., to a mobile phone with optional GSM-Module or to a control centre).
- **RS485 interface** for connecting to PC-supported temperature documentation (using the optional KIRSCH-PC-KIT).
- **Antifreeze** against sub-zero temperatures.
- **Ventilation-enforced refrigerating machine**, hermetically sealed, energy saving, low-noise, easy to service.
- **Low-noise compressor** reduces noise by 10 dB to 40 dB (corresponds to noise level I; sound perception: whisper).

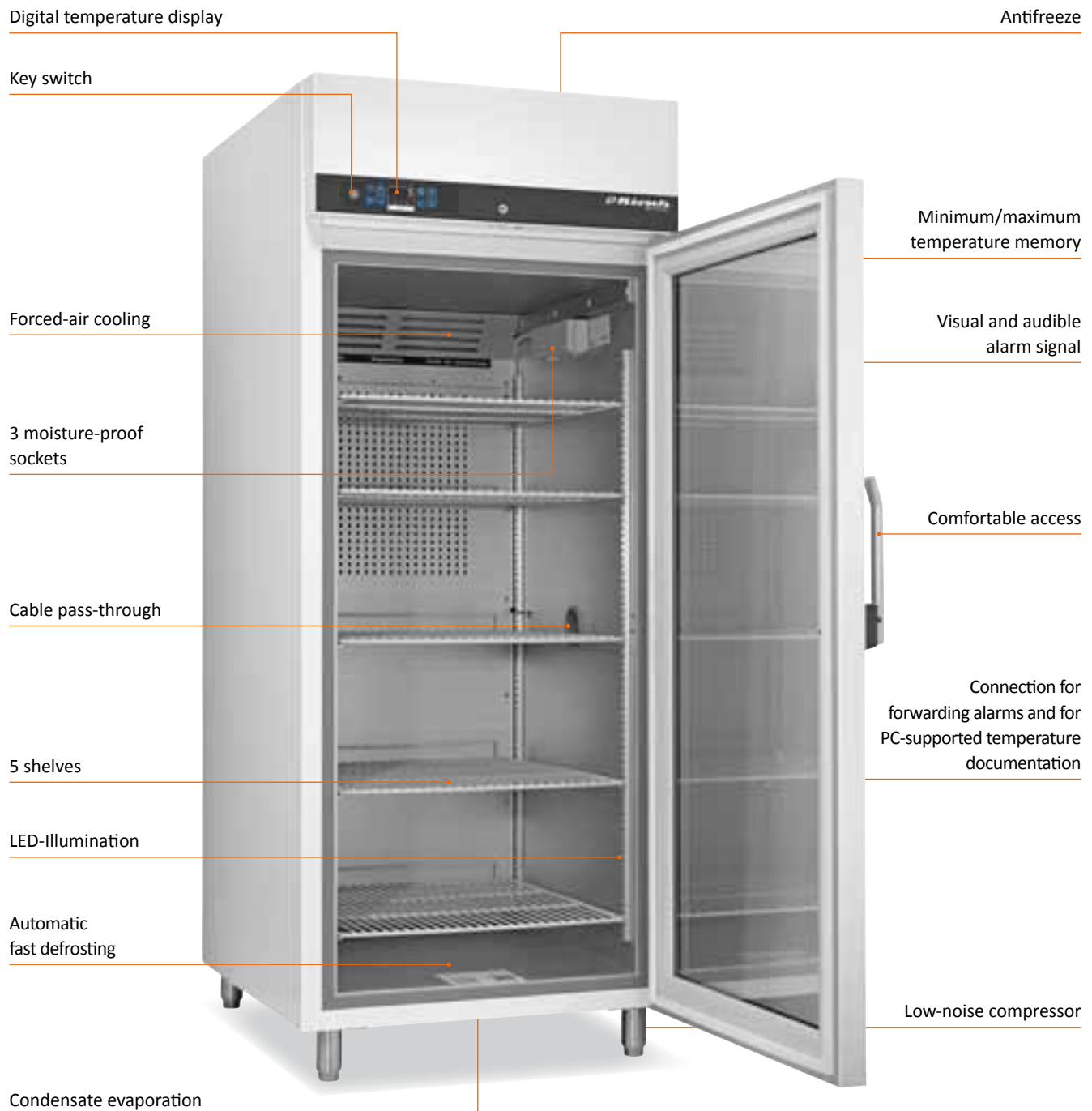
Specification

| | LABO-520 | LABO-720 |
|--|--|--|
| Capacity | 500 litres | 700 litres |
| Temperature setting | approx. +0 °C to +20 °C | approx. +0 °C to +20 °C |
| Voltage | 220 – 240 V, 50/60 Hz | 220 – 240 V, 50/60 Hz |
| Power consumption | 370 watts | 370 watts |
| Normal consumption | 2.9 kWh/24 h | 3.00 kWh/24 h |
| Admissible ambient temperature | from +10 °C to +38 °C | from +10 °C to +38 °C |
| Heat emission (max.) | 453 watts | 453 watts |
| Exterior dimensions (including door handle and distance from wall) | w x d x h = 77 x 76 x 193-196 cm | w x d x h = 77 x 98 x 193-196 cm |
| Interior dimensions | w x d x h =* 62 x 57 x 140 cm | w x d x h =* 62 x 77 x 140 cm |
| Exterior dimensions with door open at 90° | w x d = 77 x 144 cm | w x d = 77 x 165 cm |
| Shelf size | w x d = 59 x 45 cm | w x d = 59 x 65 cm |
| Max. load shelf | 40 kg | 40 kg |
| Weight | Net weight 120 kg, gross weight 150 kg | Net weight 145 kg, gross weight 180 kg |

*usable width 2 cm, usable depth 11 cm, usable height 13 cm less.

Optional equipment

- **Glass door** with lock.
- **LED-Illumination** mounted on side wall.
- **Power failure alarm** (visual and audible alarm), the monitoring unit remains in operation for approx. 72 hours on battery power.
- **Equipped with castors.**
- **Condensate container** can be emptied manually if no condensation is required (e.g., in an operating theatre).
- **Plastic-drawer on roller runners** (only LABO-520) w x d x h = 57 x 39 x 5.6 cm, (a maximum of twelve drawers is possible).
- **Aluminium-drawer on roller runners**
LABO-520: w x d x h = 56 x 39 x 10 cm,
LABO-720: w x d x h = 56 x 60 x 10 cm, (a maximum of eight drawers is possible).
- **Additional length and cross dividers** (for drawer).
- **Stainless steel-drawer** (liquid tight)
LABO-520: w x d x h = 56 x 39 x 10 cm,
LABO-720: w x d x h = 56 x 60 x 10 cm, (a maximum of eight drawers is possible).
- **Additional shelf** on rails or overlays.
- **Basket** on rails
LABO-520: w x d x h = 60 x 45 x 10 cm,
LABO-720: w x d x h = 60 x 65 x 10 cm.
- **Aluminium tray**
LABO-520: w x d x h = 60 x 40 x 2.5 cm.
LABO-720: w x d x h = 60 x 65 x 2.5 cm, with rails.
- **GSM-Module** for alarm text message transmission.
- **Temperature documentation:**
see detailed information on page 56.



Best overview through glass door

Granted the viewing of the measured facilities.



Cable pass-through

The cable pass-through in the right side wall (7 cm diameter) allows easy connection to devices.

LABO-720- CHROMAT



- **External housing** made from galvanised sheet steel (rust-proof), with white, anti-scratch powder coating. Length of the plug cable: approx. 3 m.
- **Adjustable feet** to compensate uneven floors.
- **Interior** made from smooth aluminium with colourless protective coating. Gibs (every 15 mm) for flexible interior arrangement.
- **Interior consists** of five plastic-coated shelves on overlays.
- **Extra-thick 70 mm energy saving insulation**, made from high-quality, compression-moulded and environmentally friendly material.
- **Self-closing glasdoor** with easy-to-replace plastic magnetic seal frame, lockable.
- **Door hinge** on the right-hand side (by default, see illustration), or the left-hand side, can be retrofitted.
- **Forced-air cooling** with cross-flow blower, switches off automatically when you open the door, ensures a uniform temperature and minimizes temperature deviations.
- **LED-illumination** mounted on side wall. Permanent lighting can be switched-on over a button at the control panel.
- **3 moisture-proof sockets** mounted in the interior.

- **The cable pass-through** in the right side wall (7cm diameter) allows easy connection to devices.
- **Automatic fast defrosting** thanks to time-limited and temperature-monitored reversal of the refrigerant circuit.
- **Condensate evaporates** in stainless steel heated dish beneath the refrigerator floor.
- **Key switch** protected control panel against tampering. Membrane keyboard with digital temperature display and minimum/maximum temperature memory.
- **Warning functions** with visual and audible alarm signal in the case of temperature deviations or other malfunctions. Door open alarm after 60 seconds.
- **Alarms** can be forwarded using a potential-free contact (e.g., to a mobile phone with optional GSM-Module or to a control centre).
- **RS485 interface** for connecting to PC-supported temperature documentation (using the optional KIRSCH-PC-KIT).
- **Antifreeze** against sub-zero temperatures.
- **Ventilation-enforced refrigerating machine**, hermetically sealed, energy saving, low-noise, easy to service.
- **Low-noise compressor** reduces noise by 10 dB to 40 dB (corresponds to noise level I; sound perception: whisper).

Specification

| | |
|--|--|
| Capacity | 700 litres |
| Temperature setting | approx. +4 °C to +20 °C |
| Voltage | 220 – 240 V, 50/60 Hz |
| Power consumption | 370 watts |
| Normal consumption | 3.00 kWh/24 h |
| Admissible ambient temperature | from +10 °C to +38 °C |
| Heat emission (max.) | 453 watts |
| Exterior dimensions (including door handle and distance from wall) | w x d x h = 77 x 98 x 193-196 cm |
| Interior dimensions | w x d x h = 62 x 77 x 140 cm (usable width 2 cm, usable depth 11 cm, usable height 13 cm less) |
| Exterior dimensions with door open at 90° | w x d = 77 x 165 cm |
| Shelf size | w x d = 59 x 65 cm |
| Max. load shelf | 40 kg |
| Weight | Net weight 145 kg, gross weight 180 kg |

Optional equipment

- **Power failure alarm** (visual and audible alarm), the monitoring unit remains in operation for approx. 72 hours on battery power.
- **Equipped with castors.**
- **Water-cooled refrigerating machine.**
- **Housing made of stainless steel 4301**, longitudinal brushed.
- **Aluminium-drawer on roller runners**
w x d x h = 56 x 60 x 10 cm (a maximum of eight drawers is possible).
- **Additional length and cross dividers** (for drawer).
- **Stainless steel drawer** (liquid tight)
w x d x h = 56 x 60 x 10 cm (a maximum of eight drawers is possible).
- **Additional shelf** on rails or overlays.
- **Basket** on rails
w x d x h = 60 x 65 x 10 cm.
- **Aluminium tray**
w x d x h = 60 x 65 x 2.5 cm, with rails.
- **Condensate container** can be emptied manually if no condensation is required (e.g., in an operating theatre).
- **GSM-Module** for alarm text message transmission.
- **Temperature documentation:**
see detailed information on page 56.



Laboratory Freezers without explosion-proof interior

Automatic fast defrosting and condensate evaporation: The protection against icing the freezer often requires manual, time-consuming defrosting and disposal of the condensate. Thanks to our exclusive fast defrosting function and automatic evaporation of defrost water you can use your valuable time effectively. Furthermore you can be sure that your chilled goods always have the required storage temperature.

**FROSTER-LABO-330**

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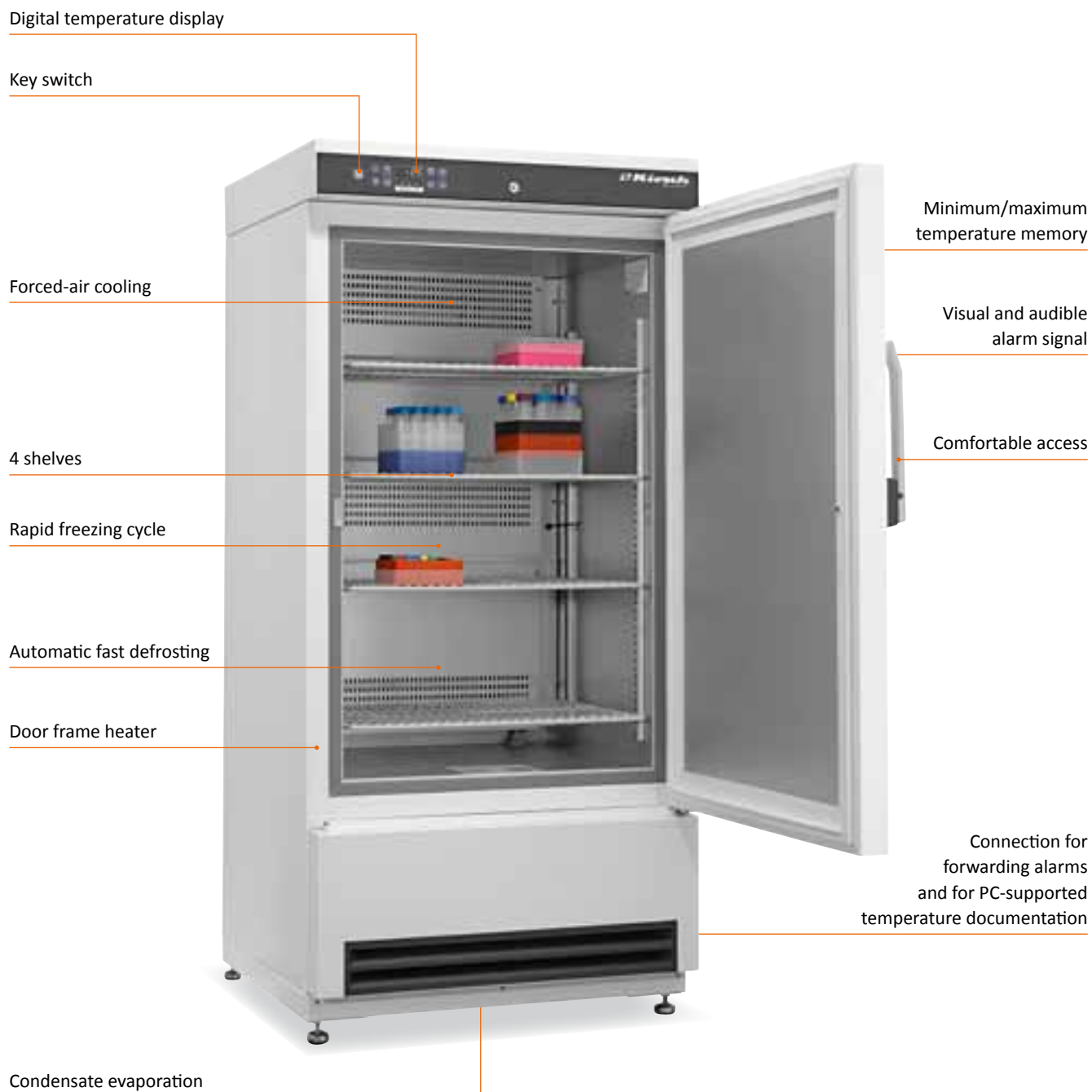
FROSTER-LABO-530/-730

Page 54

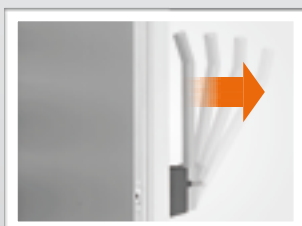
**Product name update**

The models FROSTER-320 and FROSTER-520/-720 now can be found under the following labels:

FROSTER-LABO-330 and FROSTER-LABO-530/-730.



Freezers with less capacity (70l/96l) available on demand.



Comfortable access

The sophisticated opening mechanism makes it even simpler to fit our systems with interior containers.



Control panel

Through the revised symbolism and color, the operation is more intuitive.

FROSTER- LABO-330



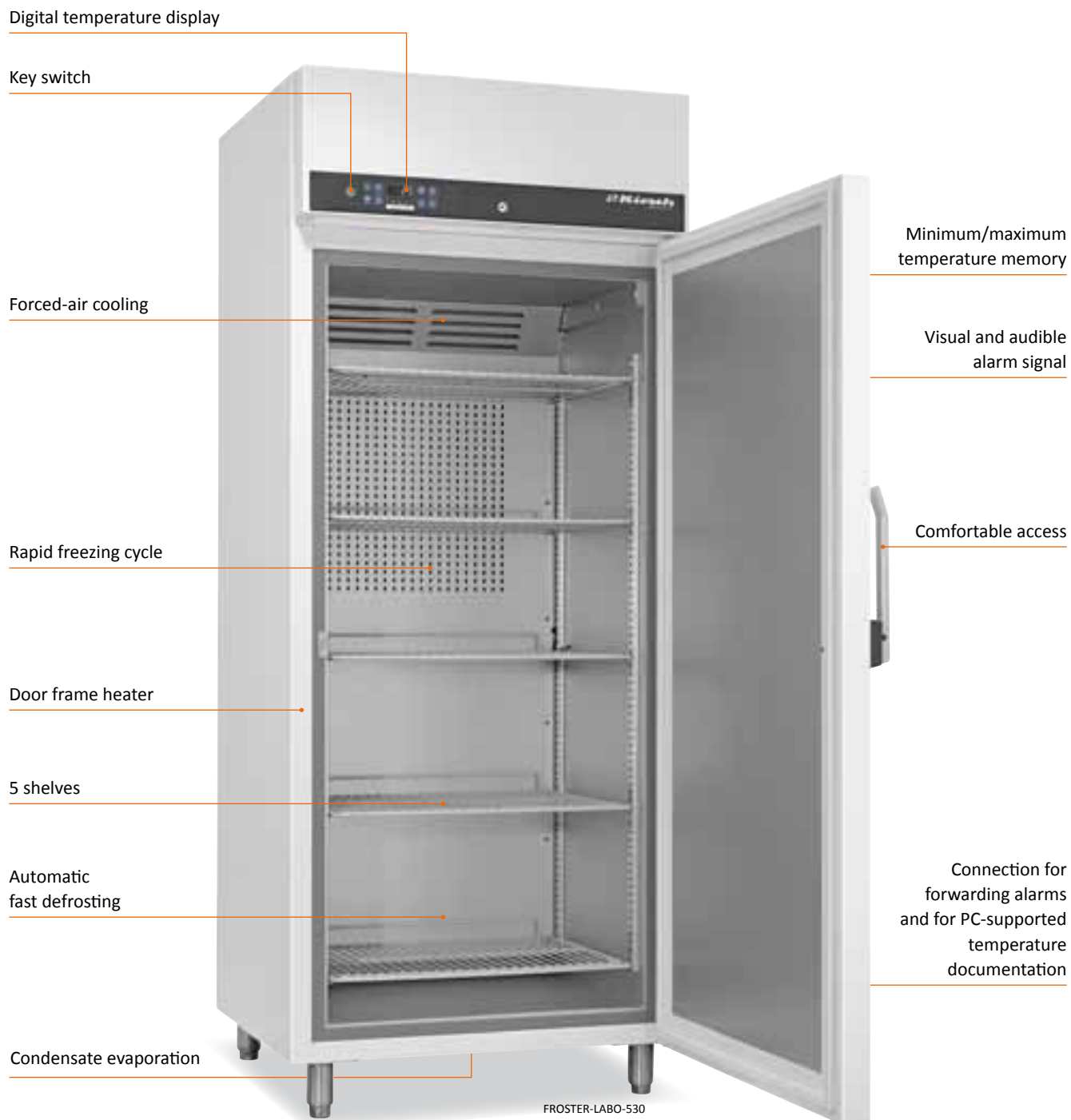
- **External housing** made from galvanised sheet steel (rust-proof), with white, anti-scratch powder coating. Length of the plug cable: approx. 1.8 m.
- **Adjustable feet** to compensate for uneven floors.
- **Interior** made from smooth aluminium with colourless protective coating. Gibs (every 15 mm) for flexible interior arrangement.
- **Interior consists** of four plastic-coated shelves on overlays.
- **Extra-thick 70 mm energy saving insulation**, made from high-quality, compression-moulded and environmentally friendly material.
- **Self-closing door** with easy-to-replace plastic magnetic seal frame, lockable.
- **Door hinge** on the right-hand side (by default, see illustration), or the left-hand side, can be retrofitted.
- **Forced-air cooling** with cross-flow blower, switches off automatically when you open the door, ensures a uniform temperature and minimizes temperature deviations.
- **Automatic fast defrosting** thanks to time-limited and temperature-monitored reversal of the refrigerant circuit.
- **Condensate evaporates** in the refrigerating machine interior.
- **Key switch** protected control panel against tampering. Membrane keyboard with digital temperature display and minimum/maximum temperature memory.
- **Warning functions** with visual and audible alarm signal in the case of temperature deviations or other malfunctions. Door open alarm after 60 seconds.
- **Alarms** can be forwarded using a potential-free contact (e.g., to a mobile phone with optional GSM-Module or to a control centre).
- **RS485 interface** for connecting to PC-supported temperature documentation (using the optional KIRSCH-PC-KIT).
- **Rapid freezing cycle** ensures that the goods to be cooled are frozen quickly.
- **Ventilation-enforced refrigerating machine**, hermetically sealed, energy saving, low-noise, easy to service.
- **Door frame heater** prevents icing of the door.

Specification

| | |
|--|--|
| Capacity | 300 litres |
| Temperature setting | approx. -5 °C to -30 °C |
| Voltage | 220 – 240 V, 50 Hz |
| Power consumption | 540 watts |
| Normal consumption | 4.58 kWh/24 h |
| Admissible ambient temperature | from +10 °C to +32 °C |
| Heat emission (max.) | 687 watts |
| Exterior dimensions (including door handle and distance from wall) | w x d x h = 74 x 78 x 159 cm |
| Interior dimensions | w x d x h = 59 x 52 x 95 cm (usable width 2 cm, usable depth 10 cm, usable height 13 cm less) |
| Exterior dimensions with door open at 90° | w x d = 74 x 142 cm |
| Shelf size | w x d = 57 x 42 cm |
| Max. load shelf | 40 kg |
| Weight | Net weight 120 kg, gross weight 135 kg |

Optional equipment

- **LED-Illumination** mounted on side wall.
- **Power failure alarm** (visual and audible alarm), the monitoring unit remains in operation for approx. 72 hours on battery power.
- **Decorative door frame** for attaching the customer's decorative plates.
- **Equipped with castors.**
- **Aluminium-drawer** on roller runners
w x d x h = 53 x 37 x 10 cm (a maximum of five drawers is possible).
- **Additional length and cross dividers** (for drawer).
- **Stainless steel drawer** (liquid tight)
w x d x h = 53 x 37 x 10 cm (a maximum of five drawers is possible).
- **Additional shelf** on rails or overlays.
- **Basket** on rails
w x d x h = 56 x 40 x 10 cm.
- **GSM-Module** for alarm text message transmission.
- **Temperature documentation:**
see detailed information on page 56.



Freezers with less capacity (70l/96l) available on demand.



Fast defrosting

Fast defrosting significantly reduces defrosting periods with minimal temperature variations.



Clean

Control screen made of plastic with smooth surface for promoting hygiene.

FROSTER- LABO-530/-730



- **External housing** made from galvanised sheet steel (rust-proof), with white, anti-scratch powder coating. Length of the plug cable: approx. 3 m.
- **Adjustable feet** to compensate for uneven floors.
- **Interior** made from smooth aluminium with colourless protective coating. Gibs (every 15mm) for flexible interior arrangement.
- **Interior consists** of five plastic-coated shelves on overlays.
- **Extra-thick 70 mm energy saving insulation**, made from high-quality, compression-moulded and environmentally friendly material.
- **Self-closing door** with easy-to-replace plastic magnetic seal frame, lockable.
- **Door hinge** on the right-hand side (by default, see illustration), or the left-hand side, can be retrofitted.
- **Forced-air cooling** with cross-flow blower, switches off automatically when you open the door, ensures a uniform temperature and minimizes temperature deviations.
- **Automatic fast defrosting** thanks to time-limited and temperature-monitored reversal of the refrigerant circuit.

- **Condensate evaporates** in stainless steel heated dish beneath the refrigerator floor.
- **Key switch** protected control panel against tampering. Membrane keyboard with digital temperature display and minimum/maximum temperature memory.
- **Warning functions** with visual and audible alarm signal in the case of temperature deviations or other malfunctions. Door open alarm after 60 seconds.
- **Alarms** can be forwarded using a potential-free contact (e.g., to a mobile phone with optional GSM-Module or to a control centre).
- **RS485 interface** for connecting to PC-supported temperature documentation (using the optional KIRSCH-PC-KIT).
- **Rapid freezing cycle** ensures that the goods to be cooled are frozen quickly.
- **Ventilation-enforced refrigerating machine**, hermetically sealed, energy saving, low-noise, easy to service.
- **Door frame heater** prevents icing of the door.

Specification

| | FROSTER-LABO-530 | FROSTER-LABO-730 |
|--|--|--|
| Capacity | 500 litres | 700 litres |
| Temperature setting | approx. -5 °C to -30 °C | approx. -5 °C to -30 °C |
| Voltage | 220 – 240 V, 50 Hz | 220 – 240 V, 50 Hz |
| Power consumption | 640 watts | 640 watts |
| Normal consumption | 7.60 kWh/24 h | 8.70 kWh/24 h |
| Admissible ambient temperature | from +10 °C to +32 °C | from +10 °C to +32 °C |
| Heat emission (max.) | 777 watts | 777 watts |
| Exterior dimensions (including door handle and distance from wall) | w x d x h = 77 x 76 x 193 - 196 cm | w x d x h = 77 x 98 x 193 - 196 cm |
| Interior dimensions | w x d x h =* 62 x 57 x 140 cm | w x d x h =* 62 x 77 x 140 cm |
| Exterior dimensions with door open at 90° | w x d = 77 x 144 cm | w x d = 77 x 165 cm |
| Shelf size | w x d = 59 x 45 cm | w x d = 59 x 65 cm |
| Max. load shelf | 40 kg | 40 kg |
| Weight | Net weight 140 kg, gross weight 170 kg | Net weight 165 kg, gross weight 200 kg |

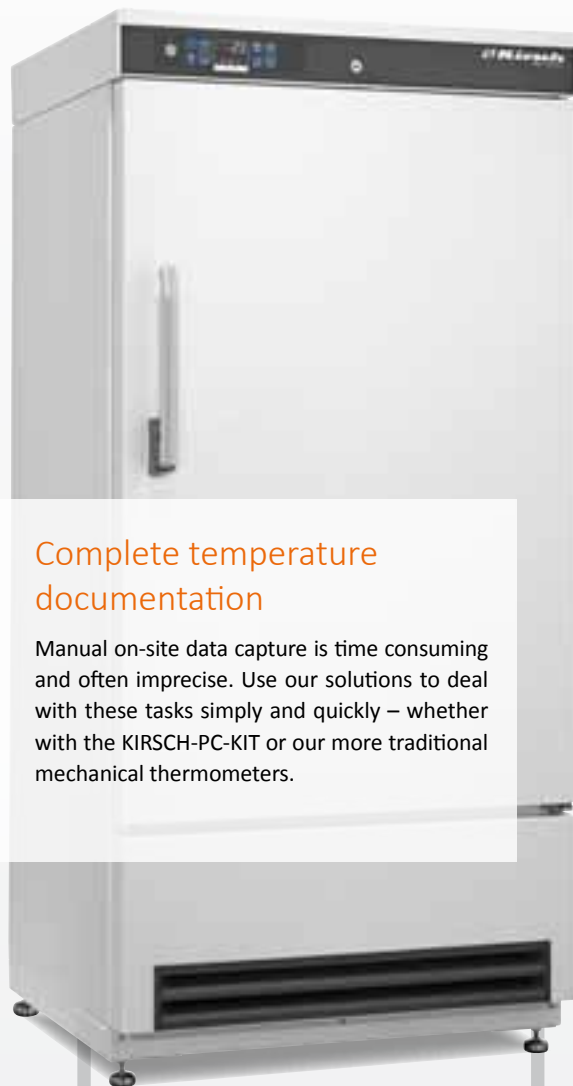
*usable width 2 cm, usable depth 11 cm, usable height 13 cm less.

Optional equipment

- **LED-Illumination** mounted on side wall.
- **Power failure alarm** (visual and audible alarm), the monitoring unit remains in operation for approx. 72 hours on battery power.
- **Decorative door frame** for attaching the customer's decorative plates.
- **Equipped with castors.**
- **Water-cooled refrigerating machine.**
- **Housing made of stainless steel 4301**, longitudinal brushed.
- **Plastic-drawer on roller runners** (only FROSTER-LABO-530) w x d x h = 57 x 39 x 5.6 cm (a maximum of twelve drawers is possible).
- **Aluminium-drawer on roller runners** FROSTER-LABO-530: w x d x h = 56 x 39 x 10 cm, FROSTER-LABO-730: w x d x h = 56 x 60 x 10 cm, (a maximum of eight drawers is possible).
- **Additional length and cross dividers** (for drawer).
- **Stainless steel drawer** (liquid tight) FROSTER-LABO-530: w x d x h = 56 x 39 x 10 cm, FROSTER-LABO-730: w x d x h = 56 x 60 x 10 cm, (a maximum of eight drawers is possible).
- **Additional shelf** on rails or overlays.
- **Basket** on rails FROSTER-LABO-530: w x d x h = 60 x 45 x 10 cm, FROSTER-LABO-730: w x d x h = 60 x 65 x 10 cm.
- **Aluminium tray** with rails FROSTER-LABO-530: w x d x h = 60 x 40 x 2.5 cm, FROSTER-LABO-730: w x d x h = 60 x 65 x 2.5 cm.
- **GSM-Module** for alarm text message transmission.

Accessories for expanding the functionality of your refrigerators and freezers.

Use our practical accessories to expand the feature set of your refrigerator or freezer. Whether it is the KIRSCH-PC-KIT for temperature documentation, or the GSM-Module for forwarding alarms to your mobile phone, or other structural options – we have what you need.



Complete temperature documentation

Manual on-site data capture is time consuming and often imprecise. Use our solutions to deal with these tasks simply and quickly – whether with the KIRSCH-PC-KIT or our more traditional mechanical thermometers.

The KIRSCH-PC-KIT in conjunction with the software KIRSCH-DATANET (scope of delivery) enables:

- Complete documentation at minimal costs using a commercially available PC.
- Real-time system monitoring.*
- Using a PC for configuring the refrigerator/freezer.*

The KIRSCH-PC-KIT is available in 3 versions, each with a specific data transfer option (only for refrigerators and freezers **with RS485 interface**).

KIRSCH-PC-KIT



KIRSCH-DATALOG

On older KIRSCH models **without RS485 interface** or to integrate third-party products, you can retrofit the temperature documentation using KIRSCH-DATALOG. With min/max temperature memory and warning functions.

Thermometer

If you prefer the mechanical temperature capture method instead of the PC-supported one, you can use our disc-type thermometer or the pen-recording thermometer.

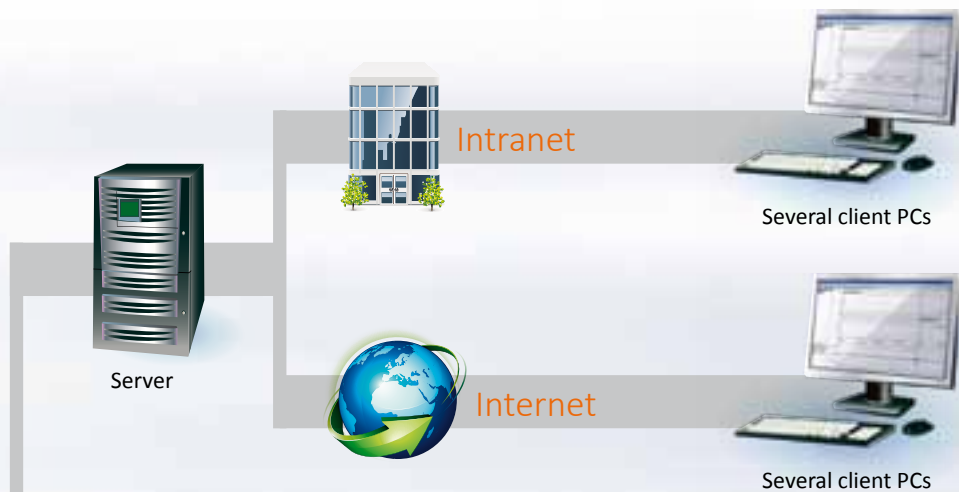


External temperature recording

Temperature sensor that can be retrofitted for external connection to PC-supported temperature evaluation devices (e.g., KIRSCH-DATALOG). All LABEX®-models are equipped with safety barriers.

Access port

Access port (diameter 8,5 mm) for external temperature probe (at all LABEX®-models the temperature sensors are intrinsically safe), measuring flask installed inside the chamber. The place of installation depends on the model.



PC-KIT-NET

Automatic temperature documentation and monitoring using LAN or Wi-Fi**. Connect as many machines as desired. Server-ready. Up to 20 users per server can access the data simultaneously.

Several client PCs



See www.kirsch-medical.com for more information on **temperature documentation** in our separate information package.



PC-KIT-STICK

The easiest method for electronic temperature documentation using a USB stick. Permanent documentation, even while data is being read. Unlimited devices can be connected.

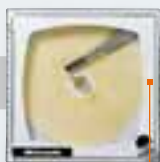
PC



PC-KIT-USB-MONITORING

Automatic temperature documentation and monitoring using a USB cable for up to 32 machines. Single workstation version.

Single workstation PC



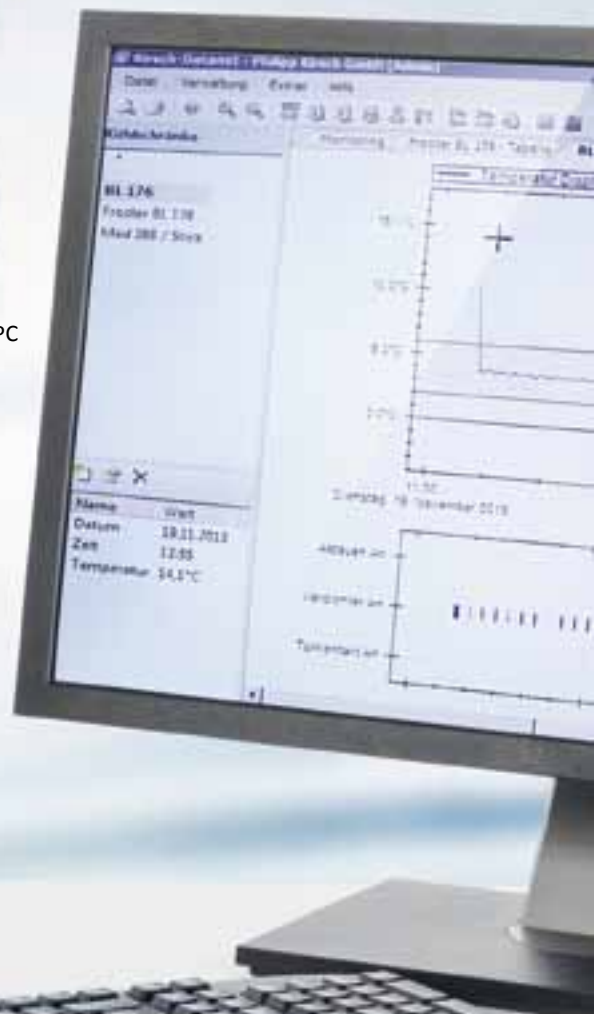
Disc-type thermometer

Depending on the model, this is either installed into the machine room screen of the refrigerator or freezer or integrated into an additional housing add-on.



Pen-recording thermometer

The easiest method to retrofit temperature documentation.



* excluding PC-KIT-STICK
 ** with commercially available Wi-Fi adapter



Leaving with a secure feeling – Text message alarm forwarding

The GSM-Module is used to forward alarm text messages to a mobile or landline phone network. This requires an activated SIM card and sufficient reception at the installation location.

Connect the GSM-Module using the potential-free contact. Reaching the alarm limits triggers a visual and audible signal at the GSM-Module and the sending of an alarm text message.



Technical options

KIRSCH refrigerators and freezers provide numerous interior design options that can be retrofitted even when the machine has already been installed.



Glass door

See clearly: avoid opening the door unnecessarily to inspect the contents. Can be locked.



Side wall/ ceiling interior lighting

Optional, optimal and energy-efficient lighting for the interior using an LED light strip.



Water-cooled refrigerating machine

For special cases, refrigerating machines with heat exchangers for cold-water connection are available for some models.



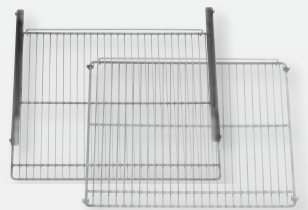
Transportable design

Equipped with steering and fixed castors.



Condensation containers

Transparent, for manual emptying.



Stainless steel shelves and wire shelves

Stainless steel shelves – guaranteed rust-free, and wire shelves, PE coated, robust with load capacity of up to 40 kg.



Drawers/ Length and cross dividers for drawers

Optimized per model, some are height adjustable. The length and cross dividers are adjustable in a variety of manners.



Combination of refrigerator and freezer

Through a connector refrigerators and freezers can be placed one above the other.

Our service – your benefit

Competent advice

Do you have any questions about our products? We can offer you professional advice. Because our service is as reliable as our products. We are looking forward to your call!



+49 (0) 781 9227-0



info@kirsch-medical.com

24/7 customer services

Faults must be rectified as soon as possible. For this reason, we work with BOSCH customer services as our service partner. Professional staff are on hand 24 hours a day, 7 days a week. Furthermore, one of the 600 highly trained technicians will be pleased to solve your problem on site.

An overview of your benefits:

- 24-hour availability, 7 days a week
- Fast response thanks to an extensive service network
- Specialized, continuously trained expert staff
- Certified according to DIN ISO 9001

Germany: BOSCH customer services



+49 (0) 89 69 339 339



+49 (0) 89 20 355 199

Regional call rates apply; mobile network charges may vary. Order placement: 24 hours a day, 7 days a week.

Austria: BOSCH customer services



+43 810 240 260



+43 160 575 512 12

Regional call rates apply; mobile network charges may vary. Order placement: 24 hours a day, 7 days a week.

Some examples:



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We have taken the greatest care to describe our systems to our customers as clearly as possible in this catalogue. Nevertheless further questions may arise in everyday use, in particular when dealing with high-quality technical products. In such an instance, please do not hesitate to call us; we will be happy to assist you. We are also constantly working on evolving all product types and models. Therefore, we kindly ask for your understanding that shape, design and technology of our systems are subject to change.



**Photograph this QR code
and get to know our entire
product range.**