Kirsch
Made in Germany. Since 1865.

Laboratory Refrigerators and Freezers

Also with explosion-proof interior

1865
Philipp Kirsch establishes the company as a coppersmith 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

1967
KIRSCH becomes on 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

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."

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 freezers. 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!

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.

ECOOL

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®-468 or LABO-100/-340/-468 etc.).

Automatic defrosting

The defrost cycle is activated automatically for all devices. For all LABO-models the melt water evaporates automatically in the compressor room. For reasons of safety, the melt water must be emtied manually in all LABEX®-models.

Forced-air cooling

Our devices with forced-air-cooling are equipped with an optimiced 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 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®-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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Company certified by mdc medical device certification GmbH according to DIN EN ISO 9001 and DIN EN ISO 13485

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 hygenie. Choose your exact storage temperature from a large temperature range.

Always visible

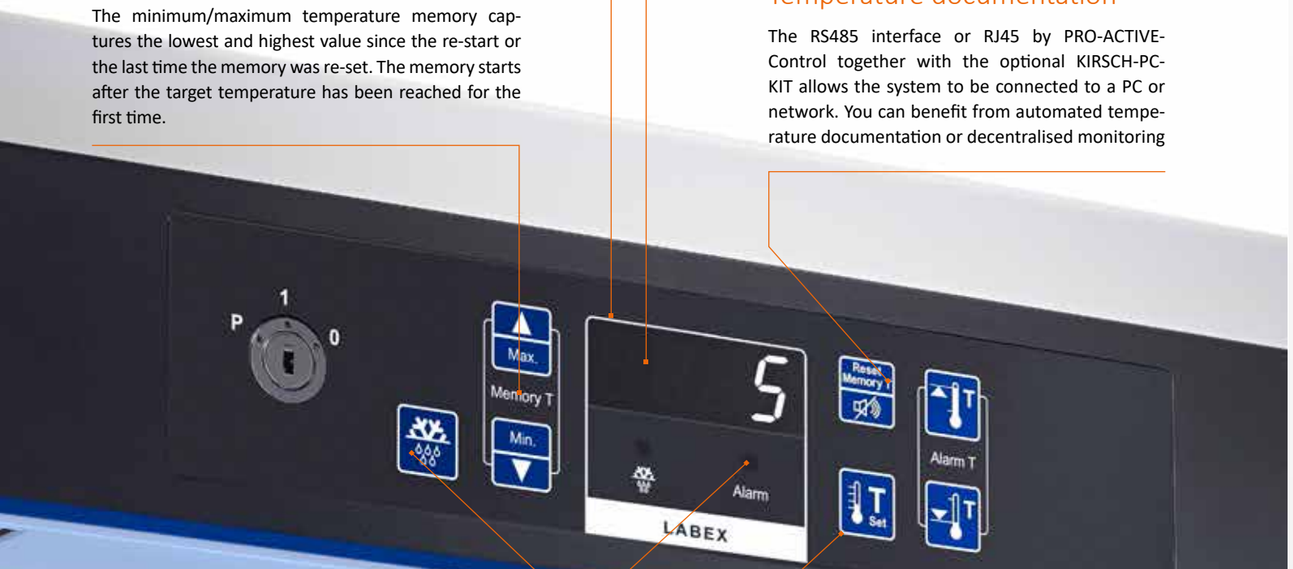
The easy-to-read LED display informs you about the temperature of the goods to be cooled and the system's operating state.

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 or RJ45 by PRO-ACTIVE-Control 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



Automatic defrosting

The defrost cycle is activated automatically for all devices. For all LABO-models the melt water evaporates automatically in the compressor room. For reasons of safety, the melt water must be emtied 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.

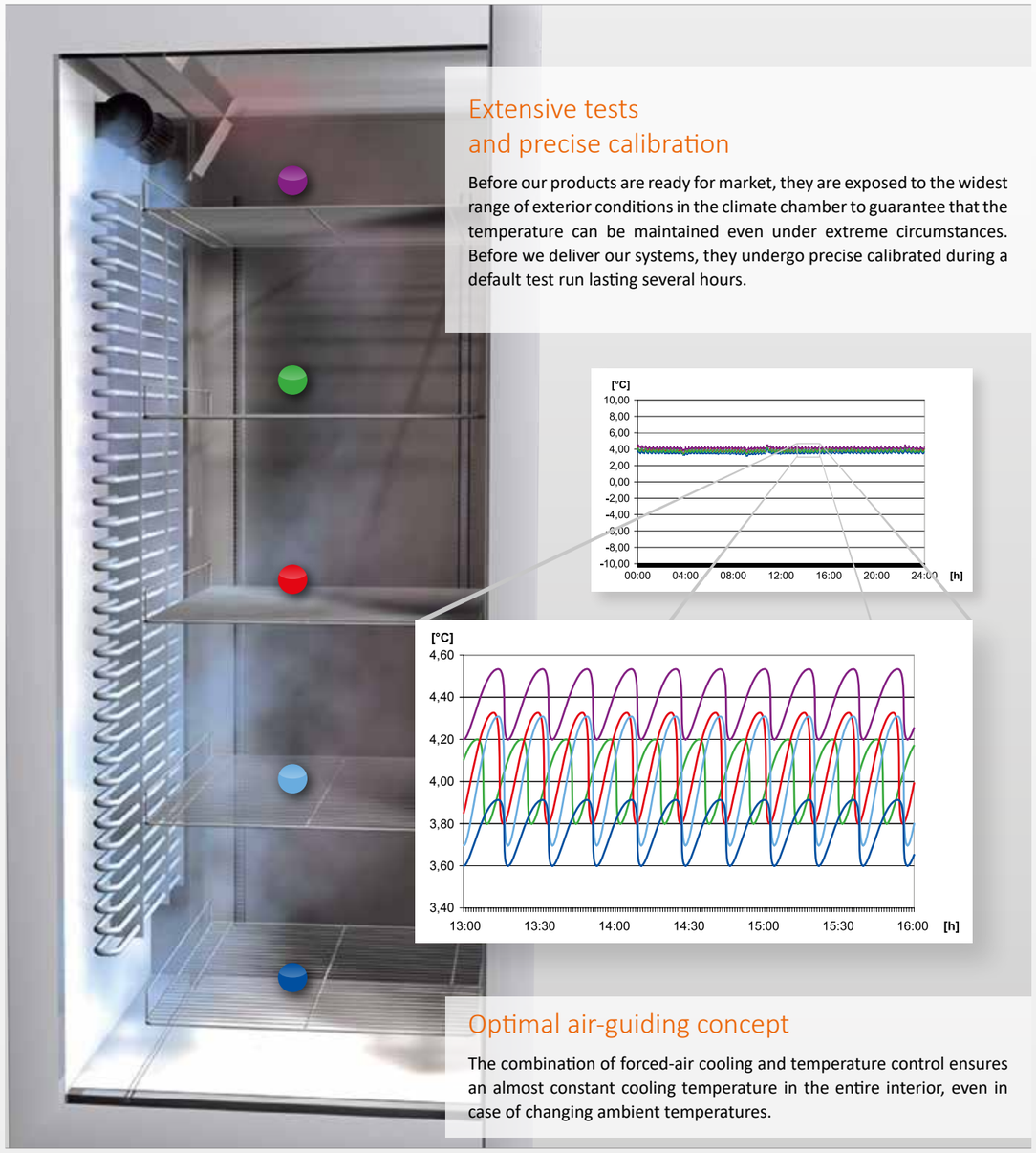
Controls

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

*when used together with the optional GSM-Module.

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 design overview of laboratory refrigerators and freezers with explosion-proof interior

Interior description		Refrigerators with explosion-proof interior				Freezers with explosion-proof interior		
		LABEX® -288	LABEX® -340	LABEX® -468	LABEX® -520/ -720	FROSTER-LABEX® -330	FROSTER-LABEX® -530	FROSTER-LABEX® -730
95 l	**Capacity**	280 l	330 l	460 l	500 l/ 700 l	300 l	500 l	700 l
2 to 20 °C	**Temperature setting** Adjustable temperature range.	+2 to +20 °C	+2 to +20 °C	+2 to +20 °C	+0 to +20 °C	-10 to -30 °C	-10 to -30 °C	-10 to -30 °C
USB	**PRO-ACTIVE- Control** Permanent, proactive monitoring of the performance data and alerts in the case of deviations – so that you can take countermeasures in good time before a fault threatens your chilled goods; world´s most accurate temperature control in refrigerated areas thanks to two standard PT-1000 sensors.	●	●	●	●	○	○	○
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	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	○	○	○	○	●	●	●
	RJ45 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.	●	●	●	●	●	●	●
EX	**Explosion-proof interior** LABEX®-Intrinsic Safety	●	●	●	●	●	●	●
x1	**Number of drawers** Standard number of integrated drawers equipped with adjustable length and cross dividers: Conductive material with stops (LABEX®-Intrinsic Safety)	1	2	○	○	Optional, depending on model.		
x1	**Number of shelves** Standard number of integrated plastic-coated shelves.	3	4	6	5	4	5	5
	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.	●	●	●	●	●	●	●
	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

Interior design overview of laboratory refrigerators and freezers without explosion-proof interior

Interior description		Refrigerators without explosion-proof interior							Freezers without explosion-proof interior		
		LABO -85	LABO -100	LABO -125	LABO -288	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	280 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 bis +20 °C	+2 to +20 °C	0 to +20 °C	+4 to +20 °C	-10 to -30 °C	-10 to -30 °C	-10 to -30 °C
USB	**PRO-ACTIVE- Control** Permanent, proactive monitoring of the performance data and alerts in the case of deviations – so that you can take countermeasures in good time before a fault threatens your chilled goods; world´s most accurate temperature control in refrigerated areas thanks to two standard PT-1000 sensors.	○	●	○	●	●	●	●	○	○	○
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	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	○	○	○	○	○	○	○	●	●	●
	RJ45 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.	●	●	●	●	●	●	●	●	●	●
x1	**Number of drawers** Standard number of integrated drawers with adjustable length and cross dividers.	1	○	○	○	1/○	○	○	Optional, depending on model.		
x1	**Number of shelves** Standard number of integrated plastic-coated shelves.	2	2	2	3	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.	○	○	○	●	●	●	●	●	●	●

● = Yes, ○ = No

LABEX® – for your safety.

The storage of your sensitive and highly flammable substances requires both precise and reliable cooling. Our LABEX®-models - developed and tested in cooperation with TÜV SÜD - are especially developed to fulfill the highest safety standards.

LABEX®-340

Intrinsic Safety – Your Benefits

All models with LABEX®-Intrinsic Safety are especially designed for storing explosive goods. Our units offer you several benefits and advantages:

- no ignition and sparks even in case of failure thanks to the construction of the unit
- interior free of any ignition sources
- constructive safety for all non-electric parts
- energy limitation of electric circuits in the cooling interior
- temperature probes are fully protected by safety barriers
- circulation fan is fuse-protected through an energy-limiting power supply
- grounding of the entire interior (equipotentiality)
- no connection to the cooling machine room thanks to a closed and sealed inner container
- controlled ventilation valve for vacuum compensation of the cooling interior
- conductive material combination in the interior – free of any ignition sources
- verification of the intrinsically safe interior in accordance with 2014/34/EU directive (previously ATEX 94/9/EC)

Manufactured according to DIN 13221

The „Refrigerators for Laboratory“ standard came into effect in August 2016.
Our laborytory refrigerators fulfill this state of technology (except LABO 85/125 and LABEX 105/125).
DIN 13221 requires the following features, among others:

- Operating temperature from +2 °C to +8 °C
- Ambient temperature at the place of installation from +10 °C to +35 °C
- Interior is easy to clean and disinfect
- The racks must be able to withstand a uniform load of 100 kg/m²
- Refrigerator doors can be locked
- Power failure alarm for a minimum of 12 hours
- Visual and audible warning signal in case of temperature variations
- Potential-free contact for forwarding alarms
- Safety device to prevent the chilled goods cooling below +2 °C

Laboratory Refrigerators with explosion-proof interior

According to DIN 13221.

In accordance with 2014/34/EU directive (previously ATEX 94/9/EC)

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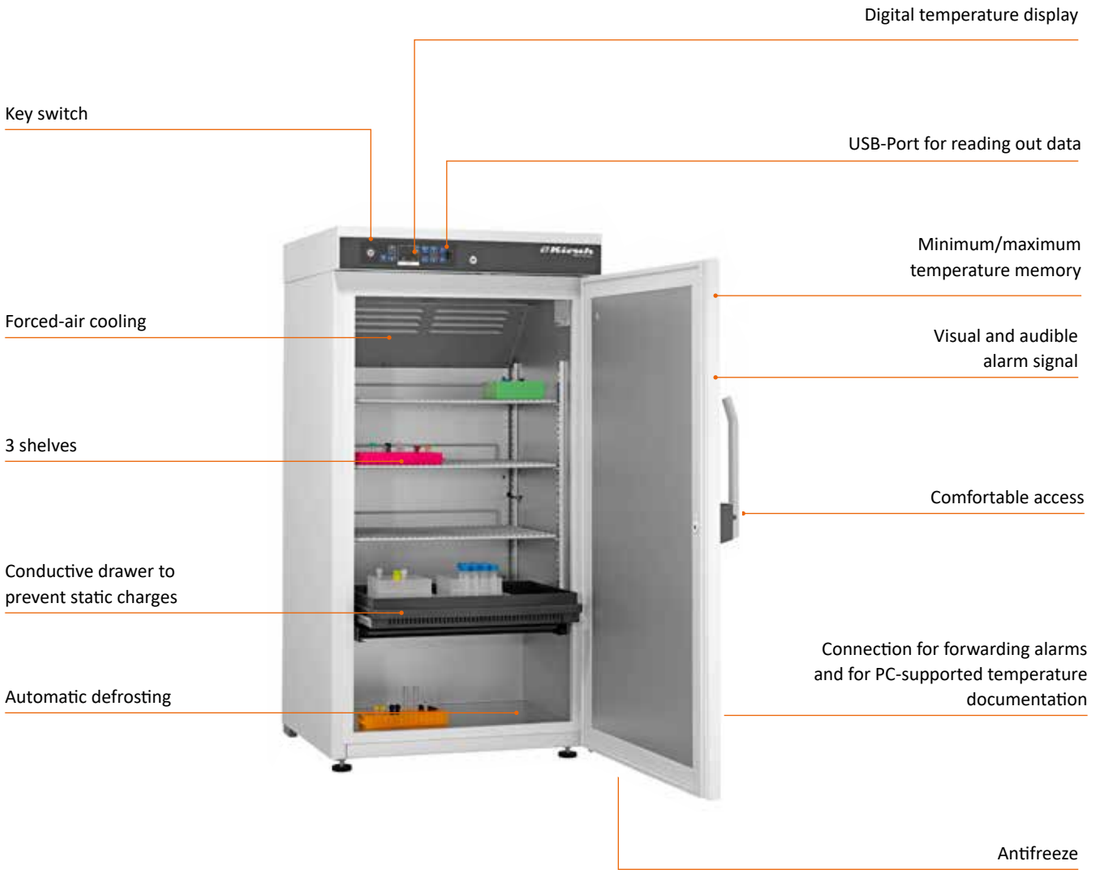
LABEX®-520/-720 Page 20



High temperature precision
The axial fan we use for forced-air cooling is specially protected through a mains adapter.

Comfortable access
The sophisticated opening mechanism makes the fitting even easier.

LABEX®-288

280 l | +2 to +20 °C | USB

according to DIN 13221

- **PRO-ACTIVE- Control:** Permanent, proactive monitoring of the performance data and alerts in the case of deviations – so that you can take countermeasures in good time before a fault threatens your chilled goods; world´s most accurate temperature control in refrigerated areas thanks to two standard PT-1000 sensors.
- **External housing** made from galvanised sheet steel (rustproof), with white, anti-scratch powder coating. Length of the plug cable: approx. 2.8 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.
- **Forced-air cooling** (axial fan is proteced), switches off automatically when you open the door, ensures a uniform temperature and minimizes temperature deviations.
- **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.
- **Power failure alarm and data recording** (visual and audible alarm), the monitoring unit remains in operation for approx. 72 hours on battery power.
- **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).
- **Data documentation** can be read via USB interface with KIRSCH Datanet software.
- **Antifreeze** against sub-zero temperatures.
- **Statically ventilated refrigerating machine**, hermetically sealed, energy saving, low-noise, easy to service.

Specification

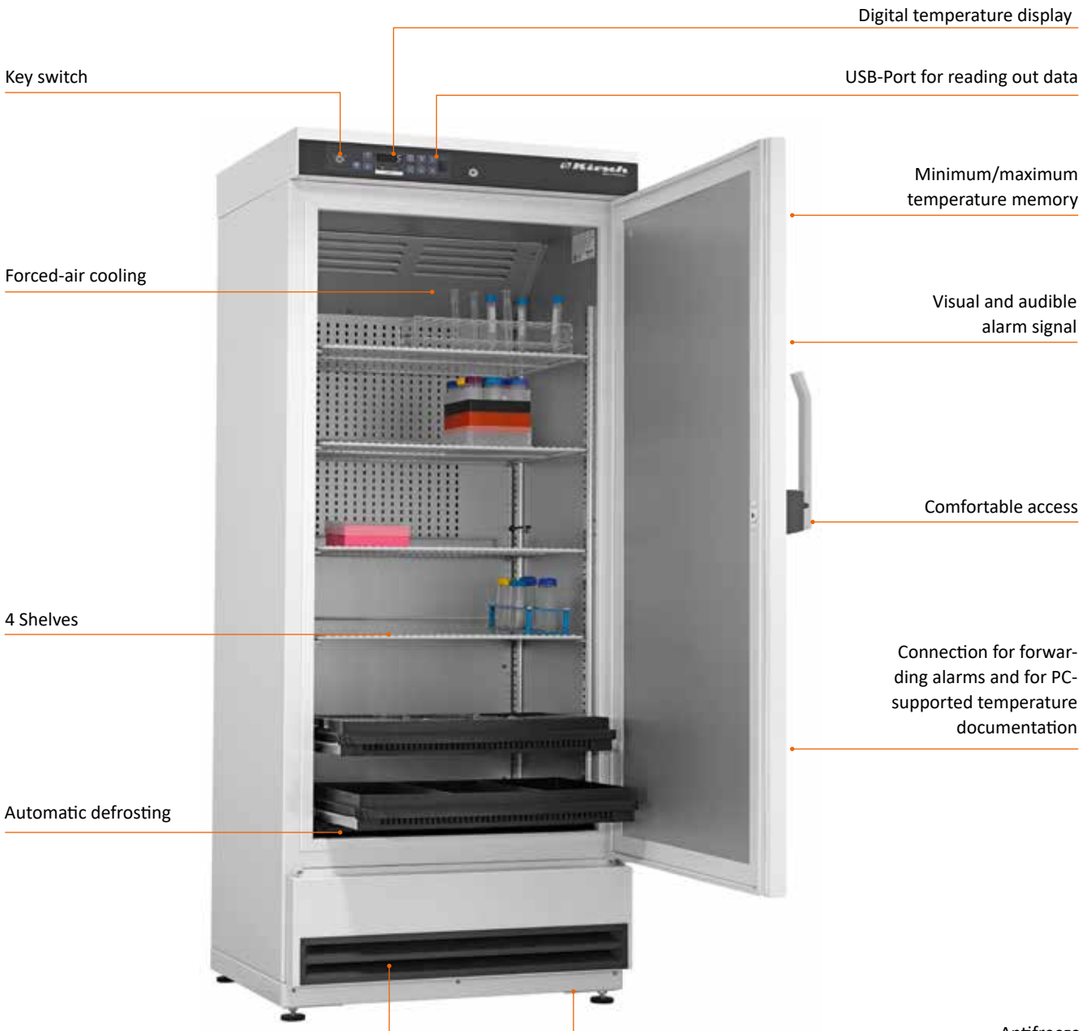
	LABEX®-288
Capacity	280 litres
Temperature setting	approx. +2 °C to +20 °C
Voltage	220 – 240 V, 50 Hz
Power consumption	100 watts
Normal consumption	0,76 kWh/24 h
Admissible ambient temperature	from +10 °C to +38 °C
Heat emission (max.)	173 watts
Exterior dimensions (including door handle and distance from wall)	w x d x h = 67 x 70 x 124 cm
Interior dimensions	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
Shelfsize	w x d = 52 x 39 cm
Drawer inner dimensions	w x d x h = 50 x 32 x 5.6 cm
Max. load drawer/shelf	16 kg/40 kg
Weight	Net weight 72 kg, gross weight 85 kg

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

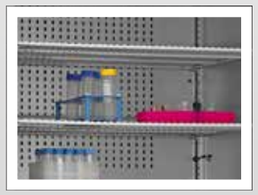
(measured values based on Eccol R600a)

Optional equipment

- **Glass door with lock.**
- **Decorative door frame** for attaching the customer's decorative plates.
- **Door fitting** (two pieces required).
- **Equipped with castors.**
- **60 Hz cooling machine upon request**
- **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 48.



LABEX®-340



Interior protected
Possible static charges are prevented by a dissipation KIRSCH-system.

LABEX®-340/-468

according to DIN 13221

330 l / 460l | +2 bis +20 °C | USB | 38 | EX | x 2/0 | x 4/6

- **PRO-ACTIVE- Control:** Permanent, proactive monitoring of the performance data and alerts in the case of deviations – so that you can take countermeasures in good time before a fault threatens your chilled goods; world´s most accurate temperature control in refrigerated areas thanks to two standard PT-1000 sensors.
- **External housing** made from galvanised sheet steel (rustproof), with white, anti-scratch powder coating. Length of the plug cable: approx. 2.8 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** of LABEX©-340 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.
  Interior of LABEX©-468 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.
- **Forced-air cooling** (axial fan is proteced), switches off automatically when you open the door, ensures a uniform temperature and minimizes temperature deviations.
- **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.
- **Power failure alarm and data recording** (visual and audible alarm), the monitoring unit remains in operation for approx. 72 hours on battery power.
- **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** (LABEX©-340) or **ventilation-enforced** (LABEX©-468) **refrigerating machine**, hermetically sealed, energy saving, low-noise, easy to service.
- **Low-noise compressor** reduces noise to 40 dB (corresponds to noise level I; sound perception: whisper, LABEX©-468 only).

Specification

	LABEX®-340	LABEX®-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 Hz	220 – 240 V, 50 Hz
Power consumption	128 watts	170 watts
Normal consumption	1.14 kWh/24 h	1.03 kWh/24 h
Admissible ambient temperature	from +10 °C to +38 °C	from +10 °C to +38 °C
Heat emission (max.)	178 watts	280 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
Shelfsize	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	w x d x h = 57 x 43 x 5.6 cm
Max. load drawer/shelf	16 kg/40 kg	40 kg
Weight	Net weight 93 kg, gross weight 105 kg	Net weight 112 kg, gross weight 125 kg

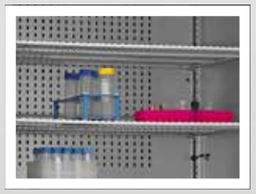
**usable depth 5 cm less.*

(measured values based on Eccol R600a)

Optional equipment

- **Glass door with lock.**
- **Decorative door frame** for attaching the customer's decorative plates.
- **Door fitting** (two pieces required).
- **Equipped with castors.**
- **60 Hz cooling machine upon request**
- **Drawer on roller runners**
  LABEX©-340: w x d x h = 50 x 32 x 5.6 cm.
  LABEX©-468: 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**
  LABEX©-468: w x d x h = 60 x 45 x 10 cm.
- **Aluminium tray** with rails
  LABEX©-340: w x d x h = 58.4 x 43 x 2.5 cm.
  LABEX©-468: 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 48.

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®-520/-720

according to DIN 13221

500 l/700 l | +0 to +20 °C | USB

- **PRO-ACTIVE- Control:** Permanent, proactive monitoring of the performance data and alerts in the case of deviations – so that you can take countermeasures in good time before a fault threatens your chilled goods; world´s most accurate temperature control in refrigerated areas thanks to two standard PT-1000 sensors.
- **External housing** made from galvanised sheet steel (rust-proof), with white, anti-scratch powder coating. Length of the plug cable: approx. 2,8 m.
- **Equipped with castors.**
- **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 proteced), 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.
- **Power failure alarm and data recording** (visual and audible alarm), the monitoring unit remains in operation for approx. 72 hours on battery power.
- **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).
- **Data documentation** can be read via USB interface with KIRSCH Datanet software.
- **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	234 Watt	234 Watt
Normal consumption	1,2 kWh/24 h	1,5 kWh/24 h
Admissible ambient temperature	from +10 °C to +38 °C	from +10 °C to +38 °C
Heat emission (max.)	542 Watt	542 Watt
Exterior dimensions (including door handle and distance from wall)	w x d x h = 77 x 76 x 195.5 cm	w x d x h = 77 x 98 x 195.5 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.*

(measured values based on Eccol R600a)

Optional equipment

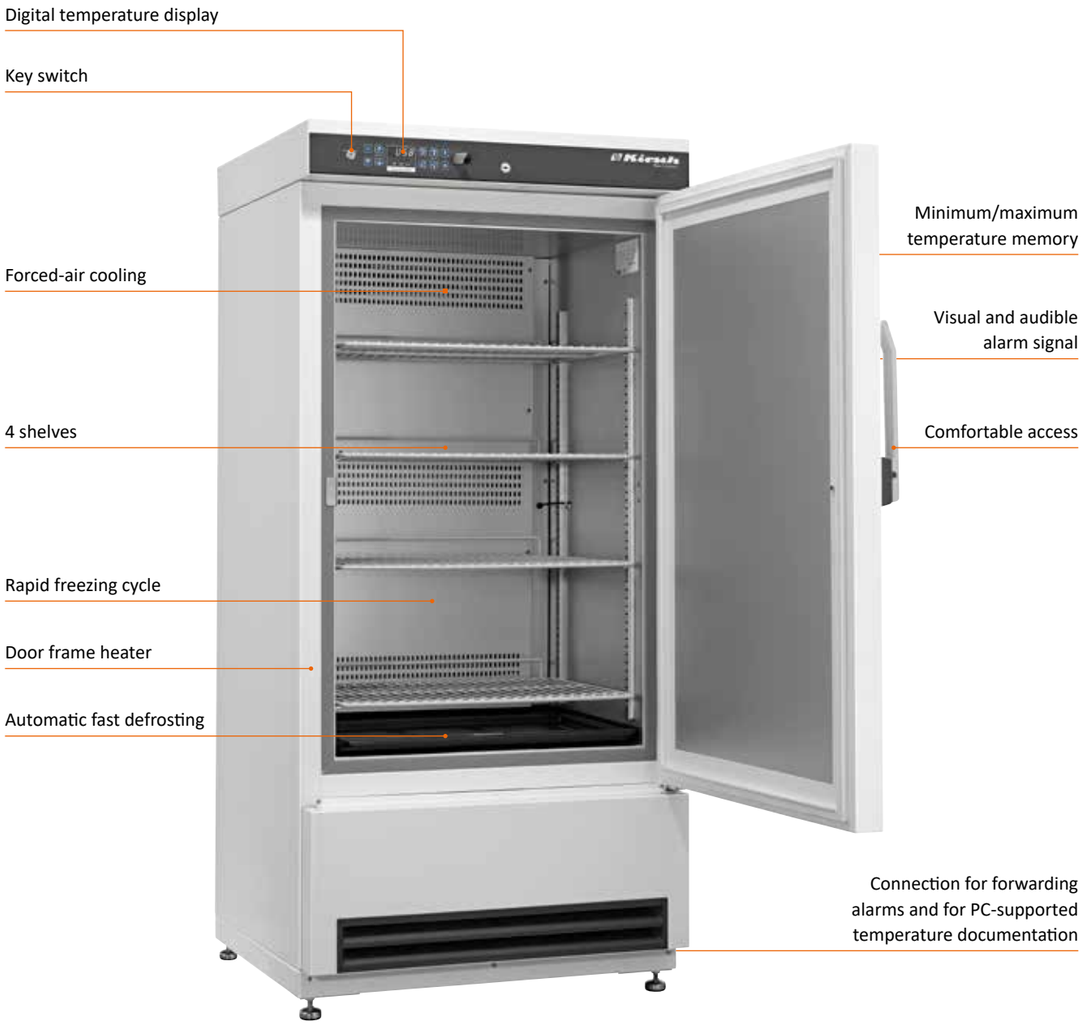
- **Glass door with lock.**
- **Drawer conductive on roller runners**
  Only for LABEX®-520: w x d x h = 57 x 39 x 5.6 cm (a maximum of twelve drawers is possible).
- **Adjustable feet** to compensate uneven floors.
- **Additional length and cross dividers** (for drawer).
- **Additional shelf** on rails 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 48.

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®-330 Page 22

FROSTER-LABEX®-530/-730 Page 24



*Pic. with PC-KIT-STICK

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

300 l | -10 to -30 °C

- **External housing** made from galvanised sheet steel (rust-proof), with white, anti-scratch powder coating. Length of the plug cable: approx. 2,8 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 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. -10 °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).
- **Additional shelf**
- **Basket on rails**
- **Temperature documentation:**
see detailed information on page 48.

FROSTER-LABEX®-530
**Pic with PC-KIT-STICK*

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. 2,8 m
- **Equipped with castors.**
- **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 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. -10 °C to -30 °C	approx. -10 °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 195.5 cm	w x d x h = 77 x 98 x 195.5 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.
- **Adjustable feet** to compensate uneven floors.
- **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 48.

Laboratory Refrigerators without explosion-proof interior

According to DIN 13221.

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

LABO-85 Page 28

LABO-100 Page 30

LABO-125 Page 32

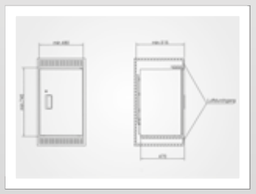
LABO-288 Page 34

LABO-340/-468 Page 36

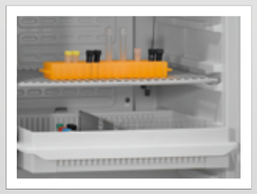
LABO-520/-720 Page 38

LABO-720-CHROMAT Page 40

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

80 l | +2 to +12 °C | 38 | ×1 | ×2

- **External housing** made from galvanised sheet steel (rust-proof), with white, anti-scratch powder coating. Length of the plug cable: approx. 2.8 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

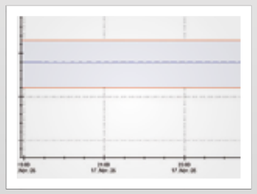
(measured values based on Eccol R600a)

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.
- **GSM-Module** for alarm text message transmission (e.g., to a mobile phone).
- **Temperature documentation:**
see detailed information on page 48.
- **60 Hz cooling machine** upon request.

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

according to DIN 13221

95 l | +2 to +20 °C | USB

- **PRO-ACTIVE- Control:** Permanent, proactive monitoring of the performance data and alerts in the case of deviations – so that you can take countermeasures in good time before a fault threatens your chilled goods; world´s most accurate temperature control in refrigerated areas thanks to two standard PT-1000 sensors.
- **External housing** made from galvanised sheet steel (rust-proof), with white, anti-scratch powder coating. Length of the plug cable: approx. 2.8 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.
- **Power failure alarm and data recording** (visual and audible alarm), the monitoring unit remains in operation for approx. 72 hours on battery power.
- **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).
- **Data documentation** can be read via USB interface with KIRSCH Datanet software.
- **Antifreeze** against sub-zero temperatures.
- **Ventilation-enforced refrigerating machine**, hermetically sealed, energy saving, low-noise, easy to service.
- **Low-noise compressor** reduces noise 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 Hz
Power consumption	76 watts
Normal consumption	0.64 kWh/24 h
Admissible ambient temperature	from +10 °C to +38 °C
Heat emission (max.)	184 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

(measured values based on Eccol R600a)

Optional equipment

- **Glass door** with lock.
- **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.**
- **60 Hz cooling machine upon request**
- **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 48.

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

120 l | +2 to +20 °C

- **External housing** made from galvanised sheet steel (rust-proof), with white, anti-scratch powder coating. Length of the plug cable: approx. 2.8 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.

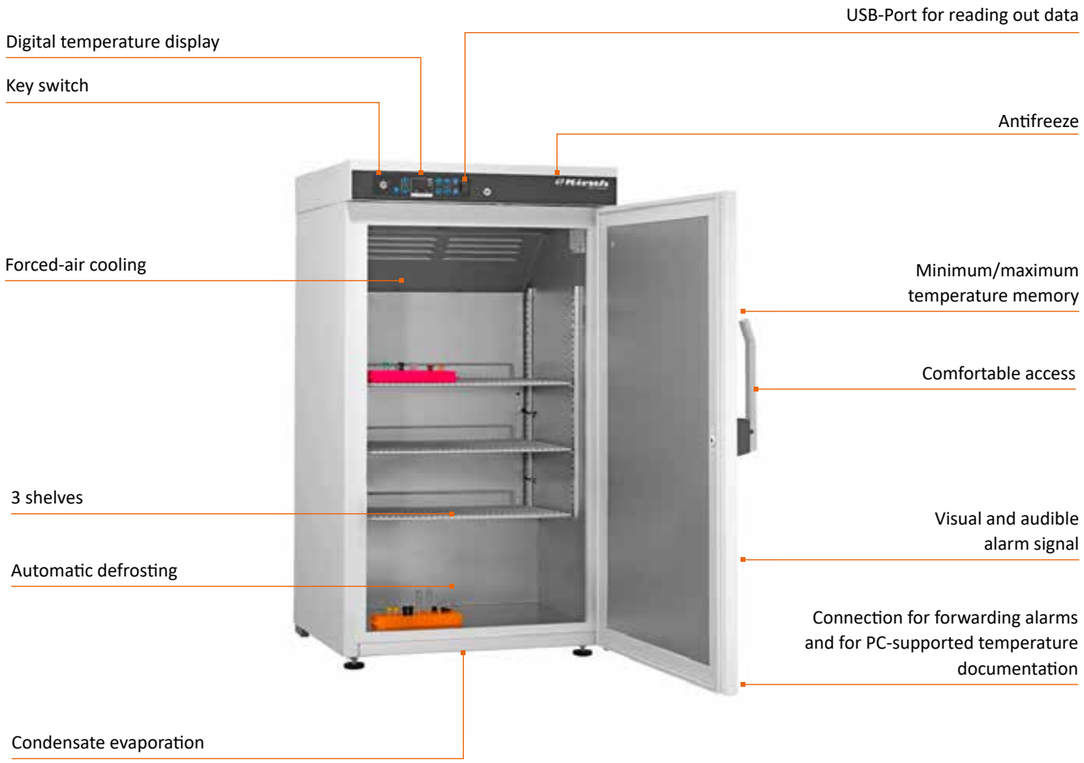
Specification

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

(measured values based on Eccol R600a)

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.
- **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 48.
- **60 Hz cooling machine** upon request.



Comfortable access
The sophisticated opening mechanism makes the fitting even easier.

High temperature precision
The axial fan we use for forced-air cooling is specially protected through a mains adapter.

LABO-288

according to DIN 13221

280 l | 2 bis 20 °C | USB

- **PRO-ACTIVE- Control:** Permanent, proactive monitoring of the performance data and alerts in the case of deviations – so that you can take countermeasures in good time before a fault threatens your chilled goods; world´s most accurate temperature control in refrigerated areas thanks to two standard PT-1000 sensors.
- **External housing** made from galvanised sheet steel (rust-proof), with white, anti-scratch powder coating. Length of the plug cable: approx. 2.8 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 three plastic-coated shelves on overlays.
- **Extra-thick 55 mm energy saving insulation**, made from high-quality, compression-moulded and environmentally friendly material.
- **Door** with easy-to-replace plastic magnetic seal frame, lockable.
- **Door stop** 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 minimises temperature deviations.
- **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.
- **Power failure alarm and data recording** (visual and audible alarm), the monitoring unit remains in operation for approx. 72 hours on battery power.
- **Warning functions** with visual and audible alarm signal in the case of temperature deviation 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).
- **Data documentation** can be read via USB interface with KIRSCH Datanet software.
- **Antifreeze** against sub-zero temperatures.
- **Statically ventilated** refrigerating machine, hermetically sealed, energy saving, low noise, easy to service.

Specification

Capacity	280 litres
Temperature setting	approx. +2 °C to +20 °C
Voltage	220 - 240 V, 50 Hz
Power consumption	88 watts
Normal consumption	0,68 kWh / 24 h
Admissible ambient temperature	from +10 °C to +38 °C
Heat emission (max.)	165 watts
Exterior dimensions (including door handle and distance from wall)	w x d x h = 67 x 70 x 124 cm
Interior dimensions	w x d x h = 53 x 50 x 100 cm (usable depth above: 5 cm, below: 13 cm less)
Exterior dimensions with door open at 90°	w x d = 67 x 130 cm
Shelf inner dimensions	w x d = 52 x 39 cm
Max. load shelf	40 kg
Weight	Net weight 78 kg, gross weight 87 kg

(measured values based on Eccol R600a)

Optional equipment

- **Glass door** with lock.
- **LED-Illumination** at the top.
- **Decorative door frame** for attaching the customer's decorative plates.
- **Door fitting.**
- **Equipped with castors.**
- **60 Hz cooling machine upon request**
- **Condensate container** can be emptied manually if no condensation is required (e.g., in an operating theatre).
- **Plastic-drawer on roller runners**
  w x d x h = 50 x 32 x 5.6 cm (inner dimension)
- **Aluminum-drawer on roller runners**
  w x d x h = 49 x 39 x 10 cm (inner dimension)
- **Stainless steel-drawer**
  w x d x h = 49 x 39 x 10 cm (inner dimension)
- **Additional length and cross dividers** (for drawer).
- **Additional shelf** on rails or overlays.
- **GSM-Modul** for alarm text message transmission.
- **Temperature documentation:**
  see detailed information on page 48.

LABO-468

LABO-340 is equipped with plastic-coated shelves on overlays and 1 drawer.

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

according to DIN 13221

330 l/ 460 l | +2 to +20 °C | USB | 38 | ×1/0 | ×3/4

- **PRO-ACTIVE- Control:** Permanent, proactive monitoring of the performance data and alerts in the case of deviations – so that you can take countermeasures in good time before a fault threatens your chilled goods; world´s most accurate temperature control in refrigerated areas thanks to two standard PT-1000 sensors.
- **External housing** made from galvanised sheet steel (rust-proof), with white, anti-scratch powder coating. Length of the plug cable: approx. 2.8 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** 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.
- **Power failure alarm and data recording** (visual and audible alarm), the monitoring unit remains in operation for approx. 72 hours on battery power.
- **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).
- **Data documentation** can be read via USB interface with KIRSCH Datanet software.
- **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 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 Hz	220 – 240 V, 50 Hz
Power consumption	110 watts	170 watts
Normal consumption	0,65 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.)	166 watts	280 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

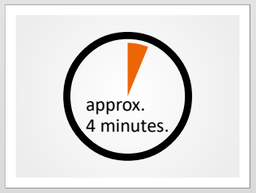
**usable depth 5 cm less.*

(measured values based on Eccol R600a)

Optional equipment

- **Glass door** with lock.
- **LED-Illumination** mounted on side wall.
- **Decorative door frame** for attaching the customer's decorative plates.
- **Door fitting.**
- **Equipped with castors.**
- **60 Hz cooling machine upon request.**
- **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 48.

LABO-720



Fast defrosting
Fast defrosting significantly reduces defrosting periods with minimal temperature variations.

LABO-520/-720

according to DIN 13221

- **PRO-ACTIVE- Control:** Permanent, proactive monitoring of the performance data and alerts in the case of deviations – so that you can take countermeasures in good time before a fault threatens your chilled goods; world´s most accurate temperature control in refrigerated areas thanks to two standard PT-1000 sensors.
- **External housing** made from galvanised sheet steel (rust-proof), with white, anti-scratch powder coating. Length of the plug cable: approx. 2,8 m.
- **Equipped with castors.**
- **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.
- **Power failure alarm and data recording** (visual and audible alarm), the monitoring unit remains in operation for approx. 72 hours on battery power.
- **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).
- **Data documentation** can be read via USB interface with KIRSCH Datanet software.
- **Antifreeze** against sub-zero temperatures.
- **Ventilation-enforced refrigerating machine**, hermetically sealed, energy saving, low-noise, easy to service.
- **Low-noise compressor** reduces noise 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 Hz	220 – 240 V, 50 Hz
Power consumption	220 watts	220 watts
Normal consumption	0,93 kWh/24 h	1,27 kWh/24 h
Admissible ambient temperature	from +10 °C to +38 °C	from +10 °C to +38 °C
Heat emission (max.)	533 watts	533 watts
Exterior dimensions (including door handle and distance from wall)	w x d x h = 77 x 76 x 195.5 cm	w x d x h = 77 x 98 x 195.5 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.*

(measured values based on Eccol R600a)

Optional equipment

- **Glass door** with lock.
- **LED-Illumination** mounted on side wall.
- **Adjustable feet** to compensate uneven floors.
- **Condensate container** can be emptied manually if no condensation is required (e.g., in an operating theatre).
- **60 Hz cooling machine upon request**
- **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 48.

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

according to DIN 13221

700 l | +4 to +20 °C | USB

- **PRO-ACTIVE- Control:** Permanent, proactive monitoring of the performance data and alerts in the case of deviations – so that you can take countermeasures in good time before a fault threatens your chilled goods; world´s most accurate temperature control in refrigerated areas thanks to two standard PT-1000 sensors.
- **External housing** made from galvanised sheet steel (rust-proof), with white, anti-scratch powder coating. Length of the plug cable: approx. 2,8 m.
- **Equipped with castors.**
- **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.
- **Power failure alarm and data recording** (visual and audible alarm), the monitoring unit remains in operation for approx. 72 hours on battery power.
- **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).
- **Data documentation** can be read via USB interface with KIRSCH Datanet software.
- **Antifreeze** against sub-zero temperatures.
- **Ventilation-enforced refrigerating machine**, hermetically sealed, energy saving, low-noise, easy to service.
- **Low-noise compressor** reduces noise 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 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 195.5 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

(measured values based on Eccol R600a)

Optional equipment

- **Water-cooled refrigerating machine.**
- **Adjustable feet** to compensate uneven floors.
- **Housing made of stainless steel 4301**, longitudinal brushed.
- **60 Hz cooling machine upon request**
- **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 48.

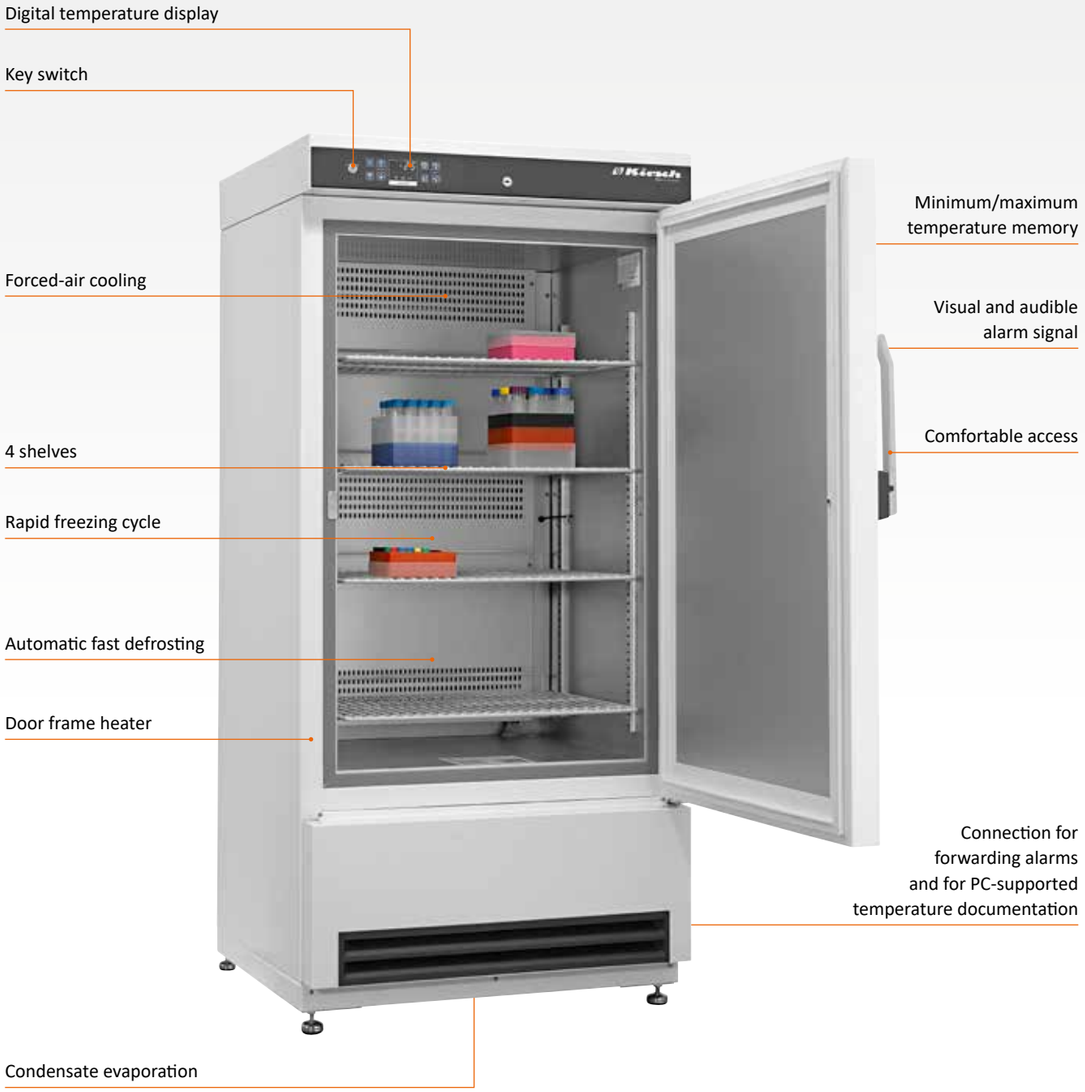
Laboratory Freezers without explosion-proof interior

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 Page 44

FROSTER-LABO-530/-730 Page 46

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
Easy handling.

FROSTER-LABO-330

300 l | -10 to -30 °C | 32 | ×4

- **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. -10 °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 48.

FROSTER-LABO-530
**Pic. with PC-KIT-STICK*

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

500 l/ 700 l | -10 to -30 °C | x5

- **External housing** made from galvanised sheet steel (rust-proof), with white, anti-scratch powder coating. Length of the plug cable: approx. 2,8 m.
- **Equipped with castors.**
- **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. -10 °C to -30 °C	approx. -10 °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 195.5 cm	w x d x h = 77 x 98 x 195.5 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

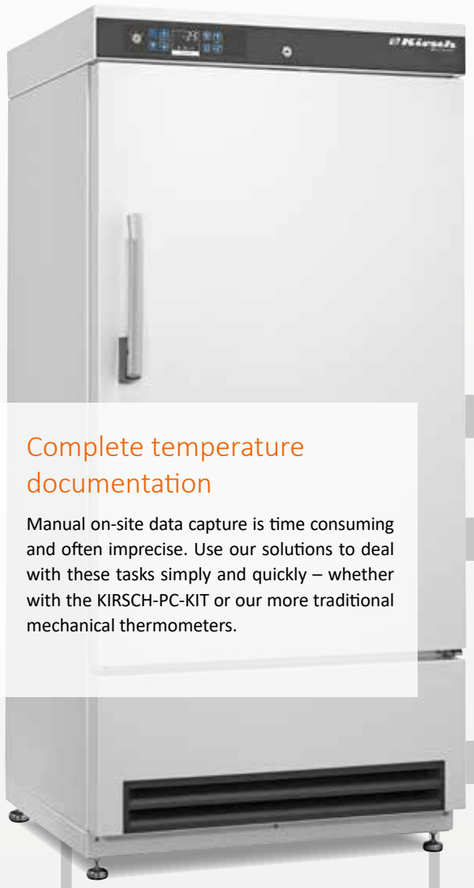
**usable width 2 cm, usable depth 11 cm, usable height 13 cm less.*

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.
- **Adjustable feet** to compensate for uneven floors.
- **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 x10 cm,
  FROSTER-LABO-730: w x d x h = 56 x 60 x10 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.
- **Temperature documentation:**
  see detailed information on page 48.

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.

KIRSCH-PC-KIT

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.*
- Alert providing via E-Mail*

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-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.

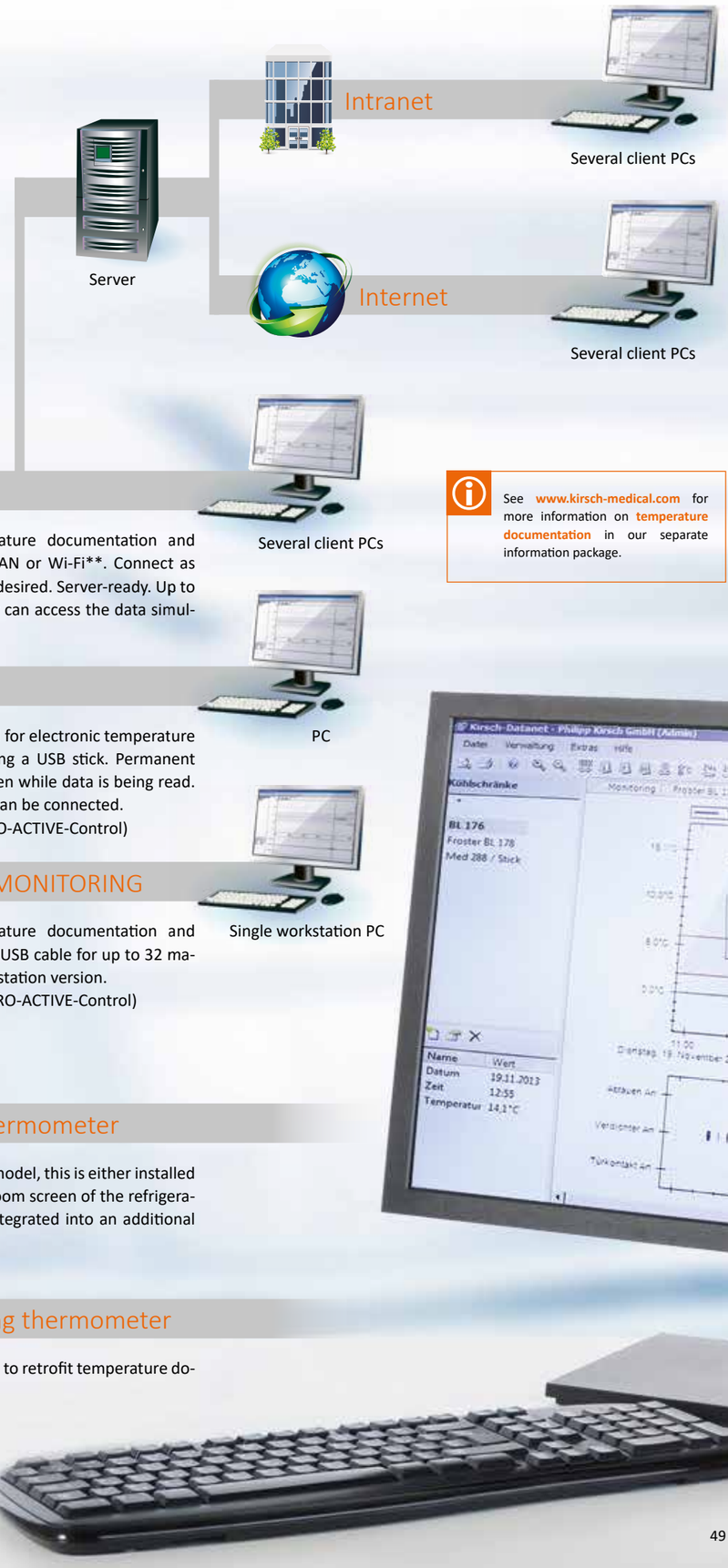
External temperature recording

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.

* excluding PC-KIT-STICK



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

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.

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.
(as standard for PRO-ACTIVE-Control)

PC-KIT-USB-MONITORING

Automatic temperature documentation and monitoring using a USB cable for up to 32 machines. Single workstation version.
(not available for PRO-ACTIVE-Control)

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.

** with commercially available Wi-Fi adapter

Leaving with a secure feeling – Text message alarm forwarding

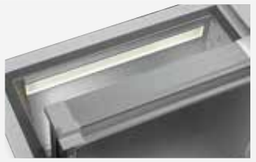
The GSM-Module is used to forward alarm text messages to a mobile or landline phone network. This requires an activated SIM card and sufficient reception at the installation location.

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

- Short response time
- Competent assistance
- Specialised, continuously trained expert staff

Germany
Philipp Kirsch GmbH

Im Lossenfeld 14
D-77731 Willstätt
Deutschland

+49 (0) 781 9227-777

+49 (0) 781 9227-200

info@kirsch-medical.com

www.kirsch-medical.com

Monday - Thursday: 8.00 h - 12.15 h and 13.15 h - 16.30 h
Friday: 8.00 h - 12.00 h and 13.00 h - 16.00 h

Netherlands
VDW CoolSystems

De Aaldor 8c
NL-4191 PC Geldermalsen
Nederland

+31 345 582 546

+31 345 580 390

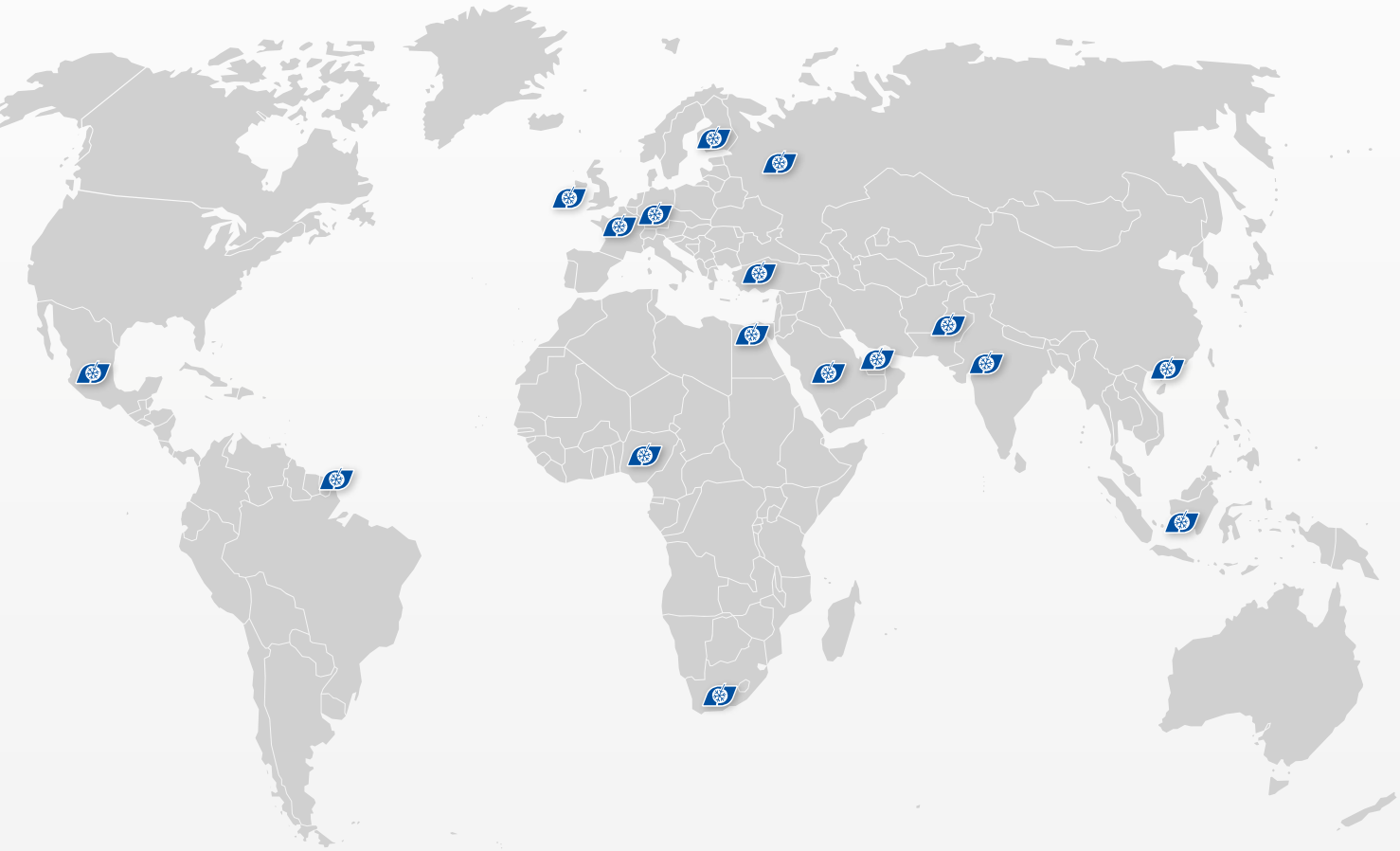
service@vdwcoolsystems.nl

Orderaanname: 24/7 (24 uur zeven dagen per week)

Made in Germany. Since 1865.

Used in more than 100 countries.

Some examples:



Philipp Kirsch GmbH
Im Lossenfeld 14
D - 77731 Willstätt

Phone: +49 (0) 781 9227-0
Fax: +49 (0) 781 9227-200
info@kirsch-medical.com

www.kirsch-medical.com

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.

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