

Pharmaceutical Refrigerators* and Freezers

*according to DIN 58345



1865

Philipp Kirsch establishes the company as a coppersmith firm

1901

Beer cooling cylinders are produced

1927

KIRSCH grows to become an industrial company

1956

1929

Bottled beer

refrigerators are

from galvanised

manufactured

sheet steel

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 one of 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 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.



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Precise controls

Choose the storage temperature from a large temperature range. With alarm functions (excluding MED-85, FROSTER-MED-70).

Forced-air cooling

All our models are equipped with forced-air cooling (excluding MED-85, MED-125 and FROSTER-MED-models). This reduces the physically induced temperate drop and enables an almost constant temperature to be maintained.

Comfortable access

Now you no longer have to jerk doors open - all you need is one finger! (For models with aluminium interior containers.)

Self-closing doors

Doors left open accidentally are a thing of the past on the models MED-340, MED-468 and MED-520.

Custom door stop

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



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



Simple to operate and safe.

Our systems are controlled by microprocessors (excluding MED-85, FROSTER-MED-70). 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.

MED

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.

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.

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

Defrosting takes place automatically and includes time and temperature monitoring. The condensate evaporates automatically.

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. The potential-free contact can forward alarms to e.g., your mobile phone* or a control centre.

Antifreeze

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

Controls

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



Uniform temperature distribution

KIRSCH forced-air cooling generates uniform air circulation in the refrigerating room. The set interior temperature is always achieved very quickly - significantly more quickly than with static cooling. Forced-air cooling ensures a unified storage temperature in the entire refrigerating room. The cooling system is optimised for each system and consists of a coordinated combination of blower and air baffle.

Flexible interior design

All our refrigerator and freezer series are equipped with telescopic drawers. As an alternative, we can provide you with robust, PE-coated wire shelves with a high load capacity of up to 40 kg.



Adjustable drawer positions

The drawers are equipped with stops and adjustable length and cross dividers. The length dividers can be arranged every 10mm, the cross dividers can be adjusted infinitely. Additional cross and length dividers can be supplied at a surcharge.



Manufactured according to DIN 58345

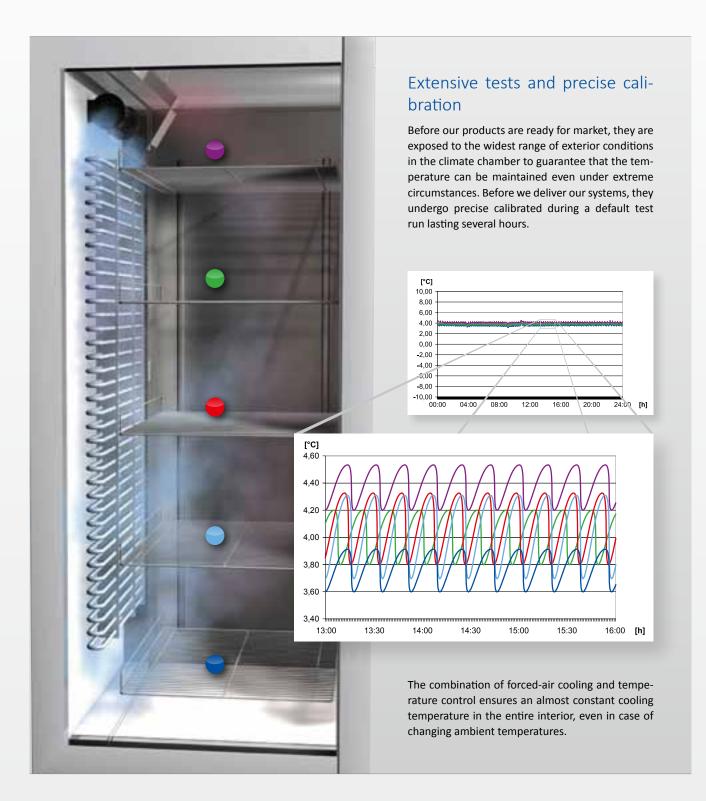
The "Refrigerators for Pharmaceuticals DIN 58345" standard came into effect in September 2007. Since then, our pharmaceutical refrigerators have been fulfilling this state of technology (MED-85 model: as an option at a surcharge only).

DIN 58345 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 pharmaceuticals cooling below +2 °C

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.).



Interior design overview

		Refriger	ators							Freezers	5
	Interior description	MED- 85	MED- 100	MED- 125	MED- 288	MED- 340	MED- 468	MED- 520	MED- 600-S	FROSTER- MED- 70	FROSTER- MED- 95
801	Capacity	80 I	95 I	120 I	280 I	330 I	460 I	500 I	600 I	70	95 l
+2 to +20°C	Temperature setting / temperature range Large temperature ranges are available for storage.	+2 to +12 °C	+2 to +20 °C	-15 to -22 °C	-5 to -25 °C						
• c 32	Ambient temperature Maximum temperature at the refrigerator's or freezer's place of installation. Correct operation is possible up to this tem- perature.	38 °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 tempera- ture in the entire interior.	0	•	0	•	•	•	•	•	0	0
@ 	RS485 interface for digital temperature documentation. When used together with the optional KIRSCH-PC-KIT, the refrigerator / freezer can be connected to a PC or network using this interface.	0	•	0	•	•	•	•	•	0	•
(())	Potential-free contact for forwarding alarms The potential-free contact allows you to forward alarms. Con- nect the optional GSM-Module to receive alarms as text mes- sages to your mobile phone. You can also connect the system to a control centre.	0	•	•	•	•	•	•	•	0	•
×**	Automatic defrosting and condensate evaporation Time and temperature are monitored. Manual defrosting is no longer required. Condensate evaporates automatically.	•	•	•	•	•	•	•	•	0	0
×1	Number of drawers Standard number of integrated plastic-drawers with stops. The drawers are equipped with adjustable length and cross dividers.	3	3	3	5	9	10	12	13	0	1
×1	Number of shelves Standard number of integrated plastic-coated shelves.	1	1	1	0	0	0	0	0	4	2
	Moulded-in shelves Interior containers made from impact-resistant plastic with moulded-in shelves guarantee a particularly high level of sta- bility. The wire shelves and drawers can be easily inserted at the desired heights.	•	•	•	0	0	0	0	0	•	•
THE REAL PROPERTY IN THE REAL PROPERTY INTO THE REAL PR	Gibs For interior containers made from aluminium, gibs allow a particularly varied use of the interior. Wire shelves and dra- wers can be positioned as desired every 15 mm.	0	0	0	•	•	•	•	0	0	0
	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 suffici- ently ventilated.	•	•	•	0	0	0	0	•	•	•
	Comfortable access Now you no longer have to jerk doors open - all you need is one finger!	0	0	0	•	•	•	•	0	0	0
	Self-closing door Doors left open accidentally are a thing of the past.	0	0	0	0	•	•	•	0	0	0

● = Yes, ○ = No

Our product innovations

Cutting edge technology "Made in Germany." True to our credo of "Quality and Innovation since 1865", we embrace the consistent evolution of our products. Discover the benefits of our new product design and further innovations.



MED-100

Ventilation grid

The wide ventilation openings provide easy cleaning and improve the flow of air in the refrigerating machine room.

Ventilation slits

The plastic slits improve the refrigerating machine's ventilation and are easy to clean. It is now easier to integrate the systems into a clean room or existing furniture.

Controls

The modified symbols and colour scheme make the system even more intuitive to operate.

Control screen

Thanks to a new structure, it is easier to clean and promotes hygiene.



Control screen

Now also made from plastic on the MED-288, reducing clearances and promoting hygiene.



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



MED-85 according to DIN 58345

Smallest-available pharmaceutical refrigerator according to DIN 58345 (optional) as a standalone or undercounter installation.



Drawer can be locked

Upon request, the MED-85 can be supplied with a lockable upper drawer as a special feature.

MED-85

Optional according to DIN 58345

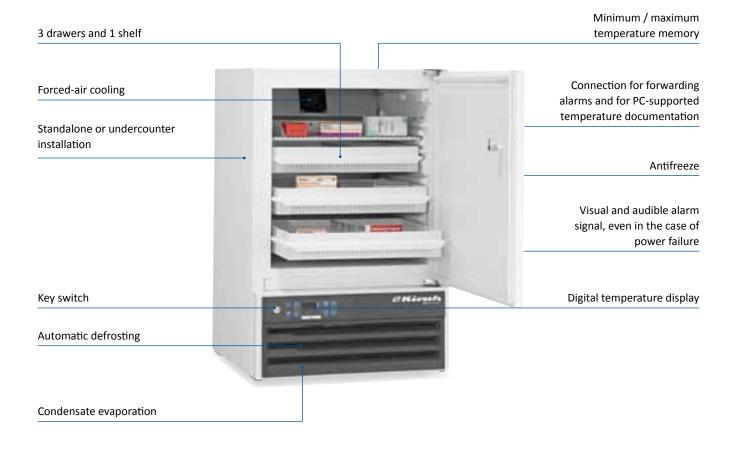
- External housing made from galvanised sheet steel (rustproof), with white, anti-scratch powder coating. Length of the plug cable: approx. 1.8 m.
- Interior made from impact-resistant, white plastic with moulded-in shelves.
- Interior consists of three drawers with stops and a plasticcoated shelf. There is one adjustable length divider and six adjustable cross dividers per drawer. Storage surface per drawer = 0.11 m².
- Extra-thick 42-mm insulation, made from high-quality, compression-moulded and environmentally friendly material. Energy saving.
- 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.
- Automatic defrosting with time and temperature monitoring.
- Condensate evaporation 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 37.8 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

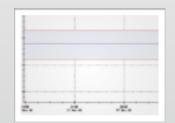
	 Equipment to DIN 58345: Digital temperature display. Further optional equipment at page 12. Decorative door frame for attaching the customer's decorative plates (exterior dimensions: 48 cm in width). Door fitting. Equipped with castors. Additional length and cross dividers. Top drawer can be locked. 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 into furniture, or if 60 Hz operation is intended.
•	GSM-Module with optional temperature sensor for alarm text message transmission (e.g., to a mobile phone). Temperature documentation:
	 PC-supported documentation using DATALOG-NET or DATALOG-USB-MONITORING.
	 4-pin PT 100 or PT 1000 temperature sensor, class 1/3 B, including built-in reference body (measurement bottle or refrigerating block).
	 Mechanical pen-recording thermometer with two waxed paper strips.



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



Easy-to-clean ventilation slits Large, smooth lamellas for easy cleaning of the ventilation slits.



High temperature precision even when built in thanks to forced-air cooling and a highperformance, ventilated refrigerating machine.

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MED-100



according to DIN 58345

- External housing made from galvanised sheet steel (rustproof), with white, anti-scratch powder coating. Length of the plug cable: approx. 1.8 m.
- Adjustable feet positioned at the front to compensate uneven floors.
- Interior made from impact-resistant, white plastic with moulded-in shelves.
- Interior consists of three drawers with stops and a plasticcoated shelf. 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.
- 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 axial blower, switches off automatically when you open the door, ensures a uniform temperature and minimizes temperature deviations.

- Automatic defrosting with time limit and temperature monitoring.
- Condensate evaporation in the refrigerating machine room.
- 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 deviation and power failure. In the case of power failure, the monitoring unit remains in operation for approx. 72 hours on battery power. Door open alarm after 60 seconds.
- Alarms can be forwarded using the floating 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. Inlet air and exhaust air flow through the ventilation slits at the front.

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.)	227 watts
Overall dimensions (including distance from wall)	w x d x h = 54 x 53.5 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 105.5 cm
Shelf size	43.8 x 33 cm
Drawer inner dimensions	w x d x h = 40.8 x 32 x 5.6 cm
Max. load: drawer / shelf	13 kg / 25 kg
Weight	Net weight 46 kg, gross weight 50 kg

- Glass door with lock.
- **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.**
- Equipped with castors.
- Additional length and cross dividers.
- Shelf (w x d = 43.8 x 36 cm) instead of drawer.
- 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:
 - PC-KIT-NET, PC-KIT-USB-MONITORING or PC-KIT-STICK including software for temperature documentation.
 - 4-pin PT 100 or PT 1000 temperature sensor, class 1/3 B, including built-in reference body (measurement bottle or refrigerating block).
 - Mechanical pen-recording thermometer with two waxed paper strips.





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



Standalone or undercounter installation with a large interior.



User friendly

with automatic defrosting and electronic temperature controller that can be installed into furniture front.

MED-125

according to DIN 58345

- External housing made from galvanised sheet steel (rustproof), with white, anti-scratch powder coating. Length of plug cable: approx. 1.8 m.
- Adjustable feet positioned at the front to compensate uneven floors.
- Interior made from impact-resistant, white plastic with moulded-in shelves.
- Interior consists of three drawers with stops and one plastic-coated shelf. 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.
- 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.

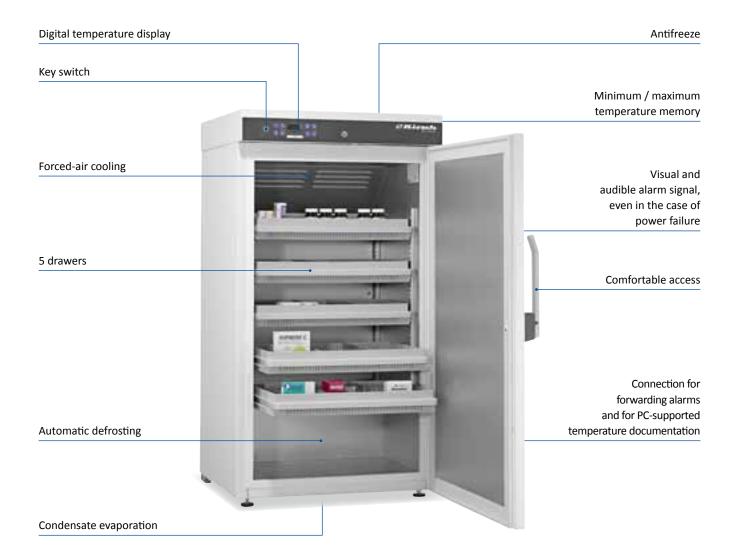
- Automatic defrosting with time limit and temperature monitoring.
- Condensate evaporation in the refrigerating machine interior.
- Electronic temperature control with membrane keyboard and digital temperature display in the interior.
- Warning functions with visual and audible alarm signal, even in the case of temperature deviation and power failure. In the case of power failure, the monitoring unit remains in operation for approx. 72 hours on battery power.
- Alarms can be forwarded using a potential-free contact (e.g., to a mobile phone with optional GSM-Module or to a control centre).
- Antifreeze against sub-zero temperatures.
- 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	125 watts
Normal consumption	0.55 kWh / 24 h
Admissible ambient temperature	from +10 °C to +38 °C
Heat emission (max.)	123 watts
Exterior dimensions (including distance from wall)	w x d x h = 54 x 53.5 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 105.5 cm
Shelf size	w x d = 43.8 x 24 cm
Drawer inner dimensions	w x d x h = 40.8 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. Equipped with castors. Top drawer can be locked. Additional length and cross dividers. Shelf (w x d = 43.8 x 33 cm) instead of drawer. Digital temperature display: optional for external installation into furniture front. 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 suffi-cient after installation, or if 60 Hz operation is intended. GSM-Module for alarm text message transmission (e.g., to a mobile phone). Temperature documentation: - PC-supported documentation with DATALOG-NET or DATALOG-USB-MONITORING. - 4-pin PT 100 or PT 1000 temperature sensor, class 1/3 B, including built-in reference body (measurement bottle or refrigerating block). Mechanical pen-recording thermometer with two waxed paper strips.





Clean

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



Comfortable access

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

MED-288



according to DIN 58345

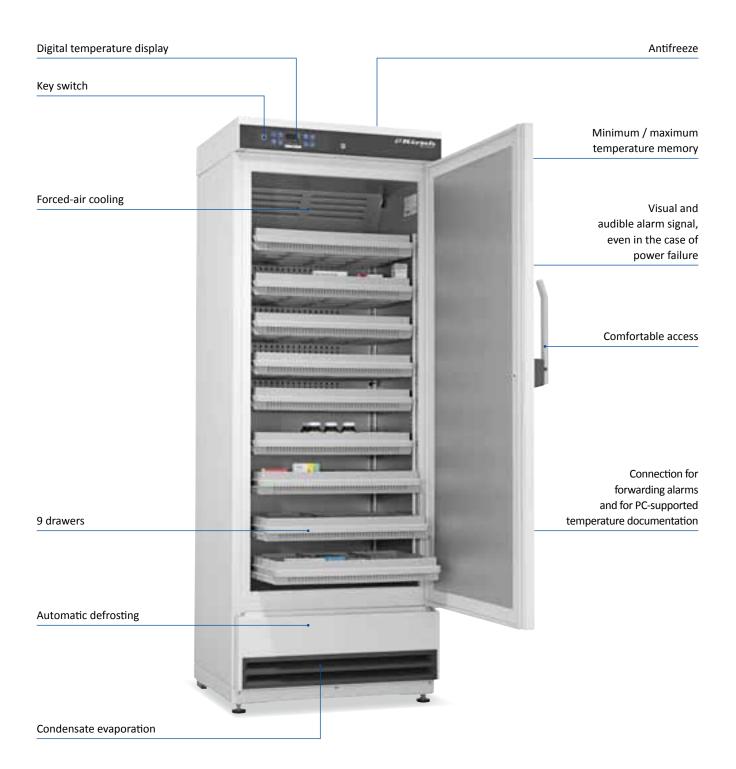
- External housing made from galvanised sheet steel (rustproof), with white, anti-scratch powder coating. Length of the plug cable: approx. 1.8 m.
- Adjustable feet positioned at the front to compensate uneven floors.
- Interior made from smooth aluminium with colourless protective coating. Gibs (every 15 mm) for flexible interior arrangement.
- Interior consists of five drawers with stops, on roller runners. There are two adjustable length dividers 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.
- 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 minimizes temperature deviations.

- Automatic defrosting with time limit and temperature monitoring.
- Condensate evaporation 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 deviation and power failure. In the case of power failure, the monitoring unit remains in operation for approx. 72 hours on battery power. 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 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, 50/60 Hz
Power consumption	155 watts
Normal consumption	1.00 kWh / 24 h
Admissible ambient temperature	from +10 °C to +38 °C
Heat emission (max.)	203 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
Drawer inner dimensions	w x d x h = 50 x 32 x 5.6 cm
Max. load drawer	16 kg
Weight	Net weight 78 kg, gross weight 87 kg

- Glass door with lock.
- **LED-Illumination** mounted at the top.
- Decorative door frame for attaching the customer's decorative plates.
- **Equipped with castors.**
- Drawers on roller runners (a maximum of 8 drawers is possible).
- Additional length and cross dividers.
- Top drawer can be locked.
- Shelf (w x d = 52.7 x 39 cm) on rails or overlays (max. load: 40 kg).
- 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:
 - PC-KIT-NET, PC-KIT-USB-MONITORING or PC-KIT-STICK including software for temperature documentation.
 - 4-pin PT 100 or PT 1000 temperature sensor, class
 1/3 B, including built-in reference body (measurement bottle or refrigerating block).
 - Mechanical pen-recording thermometer with two waxed paper strips.





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.

MED-340

according to DIN 58345

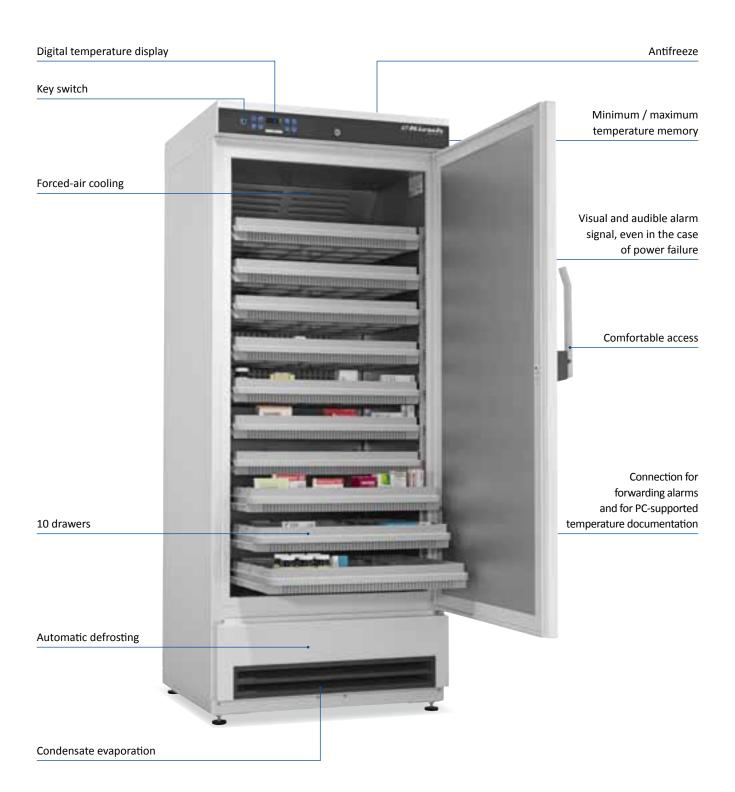
- External housing made from galvanised sheet steel (rustproof), with white, anti-scratch powder coating. Length of the plug cable: approx. 1.8 m.
- Adjustable feet to compensate uneven floors.
- Interior made from smooth aluminium with colourless protective coating. Gibs (every 15 mm) for flexible interior arrangement.
- Interior consists of nine drawers with stops, on roller runners. There are two adjustable length dividers 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.
- 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 minimizes temperature deviations.

- Automatic defrosting with time limit and temperature monitoring.
- Condensate evaporation 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 deviation and power failure. In the case of power failure, the monitoring unit remains in operation for approx. 72 hours on battery power. 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 refrigerating machine, hermetically sealed, energy saving, low noise, easy to service.

Specification

Capacity	330 litres
Temperature setting	approx. +2 °C to +20 °C
Voltage	220 - 240 V, 50/60 Hz
Power consumption	155 watts
Normal consumption	1.20 kWh / 24 h
Admissible ambient temperature	from +10 °C to +38 °C
Heat emission (max.)	183 watts
Exterior dimensions (in- cluding door handle and distance from wall)	w x d x h = 67 x 63 x 181 cm
Interior dimensions	w x d x h = 53 x 45 x 128 cm (usable depth 5 cm)
Exterior dimensions with door open at 90°	w x d = 67 x 121 cm
Drawer inner dimensions	w x d x h = 50 x 32 x 5.6 cm
Max. load drawer	16 kg
Weight	Net weight 98 kg, gross weight 110 kg

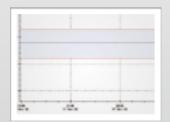
- Glass door with lock.
- **LED-Illumination** mounted on side wall, or at the top.
- Decorative door frame for attaching the customer's decorative plates.
- **Equipped with castors.**
- Drawers on roller runners (a maximum of 12 drawers is possible).
- Additional length and cross dividers.
- Top drawer can be locked.
- Shelf (w x d = 52.7 x 39 cm) on rails or overlays (max. load: 40 kg).
- 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:
 - PC-KIT-NET, PC-KIT-USB-MONITORING or PC-KIT-STICK including software for temperature documentation.
 - 4-pin PT 100 or PT 1000 temperature sensor, class
 1/3 B, including built-in reference body (measurement bottle or refrigerating block).
 - Mechanical pen-recording thermometer with two waxed paper strips.





Reliable antifreeze

against sub-zero temperatures. The refrigerating machine is switched off by the electronics.



Constant temperature

The high-performance refrigerating machine maintains the storage temperature even if doors have been opened frequently. This protects your goods to be cooled.

MED-468

according to DIN 58345

- External housing made from galvanised sheet steel (rustproof), 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 equipment consists of ten drawers with stops, on roller runners. There are two adjustable length dividers and twelve adjustable cross dividers per drawer. Storage surface per drawer = 0.24 m².
- Extra-thick 55-mm insulation, made from high-quality, compression-moulded and environmentally friendly material. Energy saving.
- 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 minimizes temperature deviations.

- Automatic defrosting with time limit and temperature monitoring.
- Condensate evaporation 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 deviation and power failure. In the case of power failure, the monitoring unit remains in operation for approx. 72 hours on battery power. 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

Capacity	460 litres
Temperature setting	approx. +2 °C to +20 °C
Voltage	220 - 240 V, 50/60 Hz
Power consumption	180 watts
Normal consumption	1.40 kWh / 24 h
Admissible ambient temperature	from +10 °C to +38 °C
Heat emission (max.)	247 watts
Exterior dimensions (in- cluding door handle and distance from wall)	w x d x h = 74 x 74.5 x 181 cm
Interior dimensions	w x d x h = 60 x 57 x 128 cm (usable depth 5 cm)
Exterior dimensions with door open at 90°	w x d = 74 x 139 cm
Drawer inner dimensions	w x d x h = 57 x 43 x 5.6 cm
Max. load drawer	24 kg
Weight	Net weight 130 kg, gross weight 143 kg

- Glass door with lock.
- **LED-Illumination** mounted on side wall, or at the top.
- Decorative door frame for attaching the customer's decorative plates.
- **Equipped with castors.**
- Drawers on roller runners (a maximum of 12 drawers is possible).
- Additional length and cross dividers.
- Top drawer can be locked.
- Shelf (w x d = 59.7 x 50 cm) on rails or overlays (max. load: 40 kg).
- 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:
 - PC-KIT-NET, PC-KIT-USB-MONITORING or PC-KIT-STICK including software for temperature documentation.
 - 4-pin PT 100 or PT 1000 temperature sensor, class
 1/3 B, including built-in reference body (measurement bottle or refrigerating block).
 - Mechanical pen-recording thermometer with two waxed paper strips.





Fast defrosting

Fast defrosting significantly reduces defrosting periods with minimal temperature variations.



Upper drawer lockable The upper drawer can be locked by default.

MED-520

according to DIN 58345

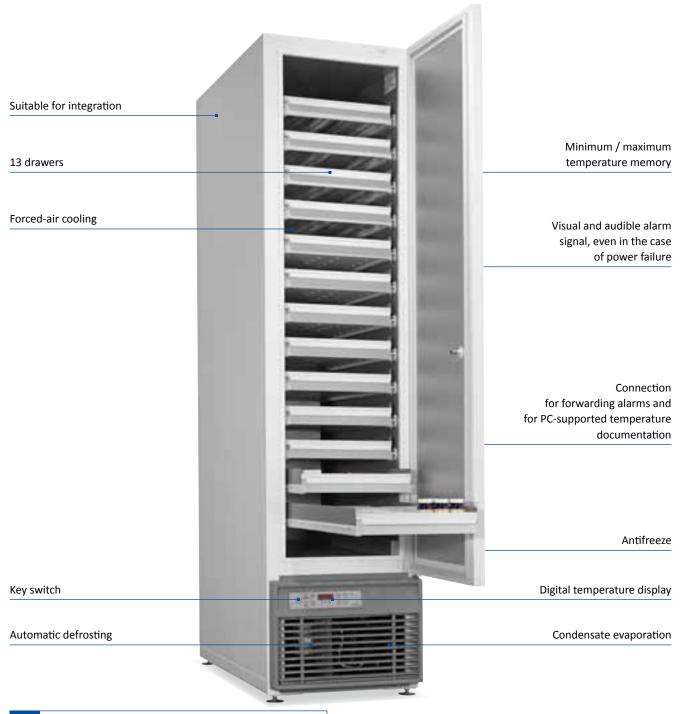
- External housing made from galvanised sheet steel (rustproof), with white, anti-scratch powder coating. Length of the plug cable: approx. 3 m.
- Adjustable feet to compensate uneven floors.
- Interior made from smooth aluminium with colourless protective coating. Gibs (every 15 mm) for flexible interior arrangement.
- Interior consists of twelve drawers with stops, on roller runners. There are two adjustable length dividers and twelve adjustable cross dividers per drawer. Storage surface per drawer = 0.23 m². Top drawer can be locked.
- Extra-thick 70-mm insulation, made from high-quality, compression-moulded and environmentally friendly material. Energy saving.
- 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 minimizes temperature deviations.

- Automatic fast defrosting thanks to time-limited and temperature-monitored reversal of the refrigerant circuit.
- Condensate evaporation 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 deviation and power failure. In the case of power failure, the monitoring unit remains in operation for approx. 72 hours on battery power. Door open alarm after 60 seconds.
- Alarms can be forwarded using the 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

Capacity	500 litres
Temperature setting	approx. +2 °C to +20 °C
Voltage	220 - 240 V, 50/60 Hz
Power consumption	330 watts
Normal consumption	2.45 kWh / 24 h
Admissible ambient temperature	from +10 °C to +38 °C
Heat emission (max.)	427 watts
Exterior dimensions (in- cluding door handle and distance from wall)	w x d x h = 77 x 76 x 193-196 cm
Interior dimensions	w x d x h = 60 x 57 x 140 cm (usable depth 10 cm)
Exterior dimensions with door open at 90°	w x d = 77 x 144 cm
Drawer inner dimensions	w x d x h = 57 x 39 x 5.6 cm
Max. load drawer	24 kg
Weight	Net weight 120 kg, gross weight 150 kg

- Glass door with lock.
- **LED-Illumination** mounted on side wall.
- Decorative door frame for attaching the customer's decorative plates.
- Equipped with castors.
- Additional length and cross dividers.
- Shelf (w x d = 59.7 x 45 cm) on rails or overlays instead of drawer (max. load: 40 kg).
- 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:
 - PC-KIT-NET, PC-KIT-USB-MONITORING or PC-KIT-STICK including software for temperature documentation.
 - 4-pin PT 100 or PT 1000 temperature sensor, class 1/3 B, including built-in reference body (measurement bottle or refrigerating block).
 - Mechanical pen-recording thermometer with two waxed paper strips.



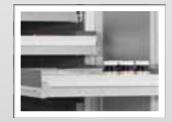
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The installation drawing is available under www.kirsch-medical.com for each model in the download area.



Perfect dimensions

The dimensions are adjusted for pharmacy furniture with lengthwise runners.



Drawers with full runner The upper four drawers have transparent bases.

MED-600-S



according to DIN 58345

- External housing made from galvanised sheet steel (rustproof), 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.
- Interior consists of 13 medication drawers with stops, on roller runners. The upper four drawers have transparent bases. There is one fixed length divider and 16 adjustable cross dividers per drawer.

Storage surface per drawer = 0.22 m².

- Extra-thick 60-mm insulation, made from high-quality, compression-moulded and environmentally friendly material. Energy saving.
- 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 minimizes temperature deviations.

- Automatic fast defrosting thanks to time-limited and temperature-monitored reversal of the refrigerant circuit.
- Condensate evaporation 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 deviation and power failure. In the case of power failure, the monitoring unit remains in operation for approx. 72 hours on battery power. Door open alarm after 60 seconds.
- Alarms can be forwarded using the 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. Inlet air and exhaust air flow through the ventilation slits at the front.

Specification

Capacity	600 litres
Temperature setting	approx. +2 °C to +20 °C
Voltage	220 - 240 V, 50/60 Hz
Power consumption	340 watts
Normal consumption	3.20 kWh / 24 h
Admissible ambient temperature	from +10 °C to +38 °C
Heat emission (max.)	447 watts
Exterior dimensions (including door handle)	w x d x h = 51 x 100 x 212-215 cm
Interior dimensions	w x d x h = 39 x 90 x 160 cm (usable depth 12 cm)
Exterior dimensions with drawers open	w x d = 51 x 164 cm
Drawer inner dimensions	w x d x h = (2 x) 15.6 x 68 x 5 cm
Max. load drawer	22 kg
Weight	Net weight 170 kg, gross weight 200 kg

- Decorative door frame for attaching the customer's decorative plates.
- Door fitting.
- Additional cross dividers.
- GSM-Module for alarm text message transmission (e.g., to a mobile phone).
- Temperature documentation:
 - PC-KIT-NET, PC-KIT-USB-MONITORING or PC-KIT-STICK including software for temperature documentation.
 - 4-pin PT 100 or PT 1000 temperature sensor, class
 1/3 B, including built-in reference body (measurement bottle or refrigerating block).
 - Mechanical pen-recording thermometer with two waxed paper strips.

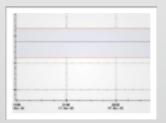
Variable temperature selection

4 shelves

Standalone or undercounter installation

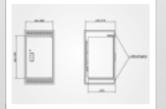
Target value thermometer

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 $^{\circ}$ C) even in the case of greater ambient temperatures of up to +32 $^{\circ}$ C.



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Suitable for integration

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

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FROSTER-MED-70



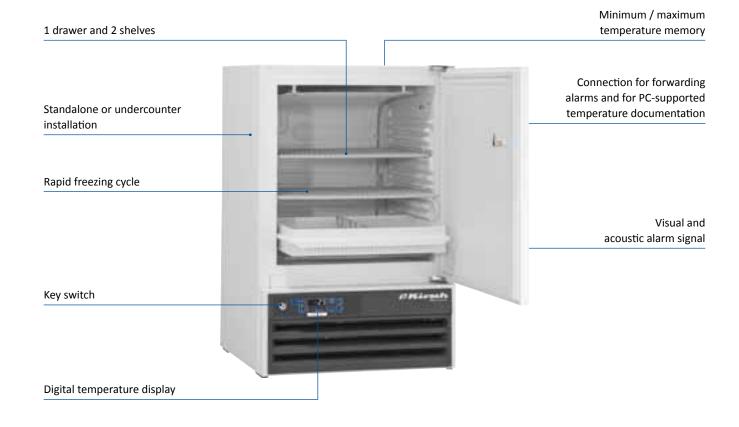
- External housing made from galvanised sheet steel (rustproof), with white, anti-scratch powder coating. Length of the plug cable: approx. 1.8 m.
- Interior made from impact-resistant, white plastic with moulded-in shelves.
- Interior consists of four plastic-coated shelves.
- Extra-thick 55-mm insulation,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

Specification

Capacity	70 litres
Temperature setting	approx15 °C to -22 °C
Voltage	220 - 240 V, 50/60 Hz
Power consumption	100 watts
Normal consumption	1.98 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
Shelf	w x d = 20.5 x 35.2 cm / 31.5 x 35.3 cm
Max. load shelf	25 kg
Weight	Net weight 34 kg, gross weight 42 kg

- Decorative door frame for attaching the customer's decorative plates.
- Door fitting.
- Equipped with castors.
- Drawer (w x d x h = 29 x 26 x 5) instead of shelf (max. load: 9.5 kg).
- Refrigerating machine fan: required when the system is used as a built-in freezer if static ventilation is insufficient.
- **GSM-Module** with optional temperature sensor for alarm text message transmission (e.g., to a mobile phone).
- **Temperature documentation:**
 - PC-supported documentation with DATALOG-NET or DATALOG-USB-MONITORING.
 - 4-pin PT 100 or PT 1000 temperature sensor, class
 1/3 B, including built-in reference body (measurement bottle or refrigerating block).
 - Mechanical pen-recording thermometer with two waxed paper strips.



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



Easy-to-clean ventilation slits

Large, smooth lamellas for easy cleaning of the ventilation slits.



Power package

High-performance freezer for standalone or undercounter installation (up to -25 °C).

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FROSTER-MED-95



- External housing made from galvanised sheet steel (rustproof), with white, anti-scratch powder coating. Length of the plug cable: approx. 1.8 m.
- Adjustable feet positioned at the front to compensate uneven floors.
- Interior made from impact-resistant, white plastic with moulded-in shelves.
- Interior consists of one drawer with stop and two plasticcoated 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.
- 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.

- Manual defrosting. Removable condensation container.
- 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 deviation.
- 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.

Specification

Capacity	95 litres	
Temperature setting	approx5 °C to -25 °C	
Voltage	220 - 240 V, 50/60 Hz	
Power consumption	160 watts	
Normal consumption	2.60 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 53.5 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 105.5 cm	
Shelf size	w x d = 43.8 x 36 cm	
Drawer inner dimensions	w x d x h = 40.8 x 32 x 5.6 cm	
Max. load drawer/shelf	13 kg / 25 kg	
Weight	Net weight 42 kg, gross weight 50 kg	

- **Tabletop** (exterior dimensions: 85 cm in height).
- Decorative door frame for attaching the customer's decorative plates.
- Door fitting.
- Equipped with castors.
- Additional drawer or shelf.
- Additional length and cross dividers.
- Alarm is also triggered in the case of power failure (visual and audible alarm); the monitoring unit remains in operation for approx. 72 hours on battery power.
- GSM-Module for alarm text message transmission (e.g., to a mobile phone).
- Temperature documentation:
 - PC-KIT-NET, PC-KIT-USB-MONITORING or PC-KIT-STICK including software for temperature documentation.
 - 4-pin PT 100 or PT 1000 temperature sensor, class
 1/3 B, including built-in reference body (measurement bottle or refrigerating block).
 - Mechanical pen-recording thermometer with two waxed paper strips.

Accessories for expanding the functionality of your refrigerators and freezers

Use our practical accessories to expand the feature set of your KIRSCH 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-DATALOG

or freezer*

KIRSCH-PC-KIT

On older KIRSCH models without RS485 interface or to integrate third-party products, you can retrofit the temperature documentation using KIRSCH-DATALOG.

The KIRSCH-PC-KIT in conjunction with

Using a PC for configuring the refrigerator

The KIRSCH-PC-KIT is available in 3 versions, each

with a specific data transfer option.

KIRSCH-DATANET (scope of delivery) enables:
 Complete documentation at minimal costs using a commercially available PC
 Real-time system monitoring*

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.



Temperature sensor that can be retrofitted for external connection to PC-supported temperature evaluation devices (e.g., KIRSCH-DATALOG).





Several client PCs

Several client PCs



PC-KIT-NET

Automatic temperature documentation and monitoring using LAN or Wi-Fi**. Connect as many machines as desired. Up to 3 users can access the data simultaneously. Server-ready.

Several client PCs

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

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PC-KIT-STICK

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



Single workstation PC



PC-KIT-USB-MONITORING

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



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



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 with lock 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



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



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



Drawers Optimised per model, some are height adjustable.



Transportable design Equipped with steering and fixed castors.

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Length and cross dividers for drawers Adjustable in a variety of manners.



Condensation containers Transparent, for manual emptying.

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!

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.

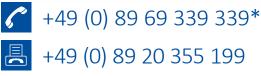
An overview of your benefits:

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

+49 (0) 781 9227-0 info@kirsch-medical.com

*Regional call rates apply. Order acceptance to the regular business hours: (Mo.-Th. 8.00 am to 12.15 pm / 13.15 pm to 16.30 pm; Fr. 8.00 am to 12.00 pm).

Germany: BOSCH customer services



*Regional call rates apply. Order acceptance: 24 hours a day, 7 days a week.

Austria: BOSCH customer services



*Regional call rates apply. Order acceptance: 24 hours a day, 7 days a week.

Used in more than 100 countries.

Some examples:



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 highquality 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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Visit our Website and get to know our entire product range

www.kirsch-medical.com



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