Pharmaceutical Refrigerators*
and Freezers

*according to DIN 58345

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!

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."

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 drawers

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

Automatic defrosting

The defrost cycle is activated automatically for all devices. The melt water evaporates automatically in the compressor room (except all FROSTER-MED-models).

Forced-air cooling

All our models are equipped with forced-air cooling. This reduces the physically induced temperate 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 MED-340, MED-468 and MED-520 models.

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. Also equipped with comfortable access (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.

Table of Contents

Certified Quality-System
mdc
ISO 13485
ISO 9001

TÜV SÜD
EMC

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 (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.

Precise controls

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

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 or RJ45 (PRO-ACTIVE-Control) 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.
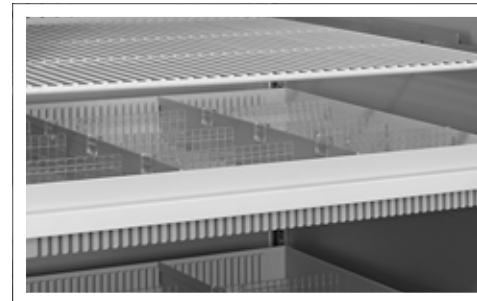
Flexible interior design

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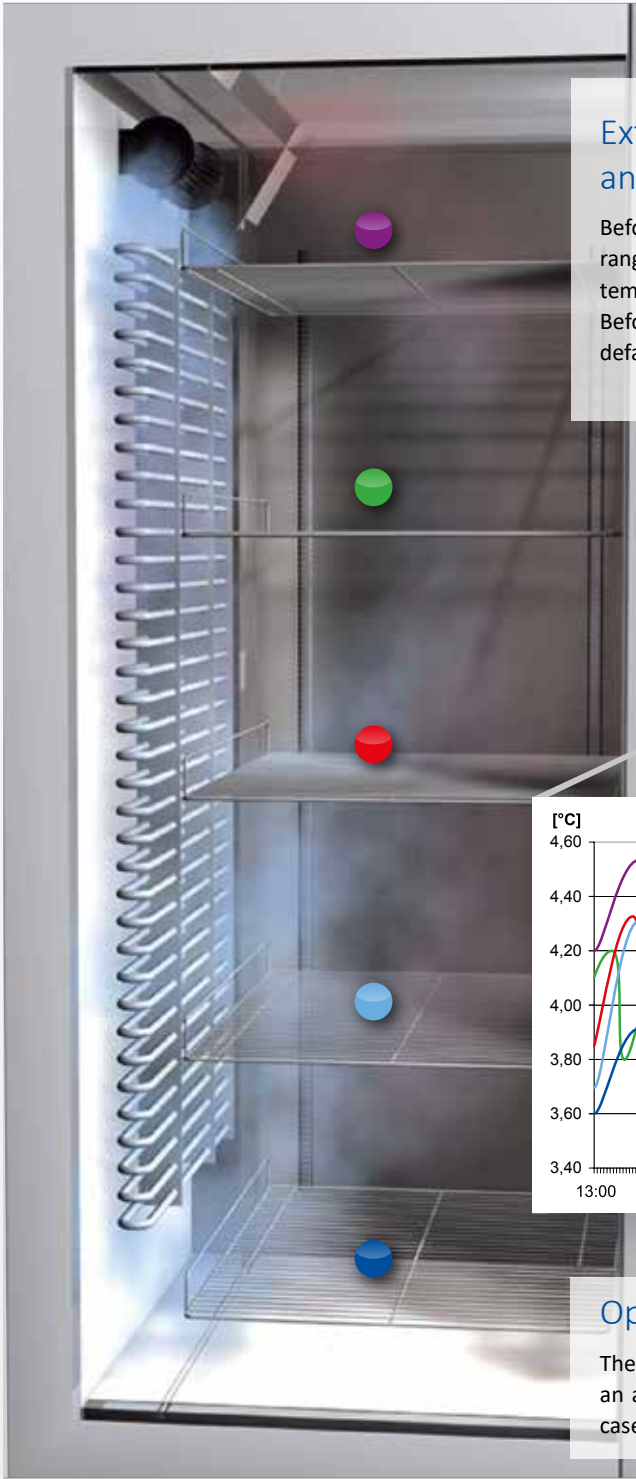
The „Refrigerators for Pharmaceuticals DIN 58345" standard came into effect in September 2007. Since then, our pharmaceutical refrigerators have been fulfilling this state of technology (MED-85 model: as an option at a surcharge only).

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

*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.).
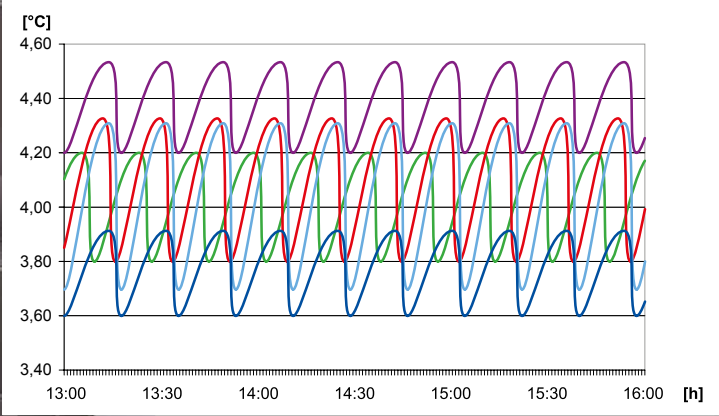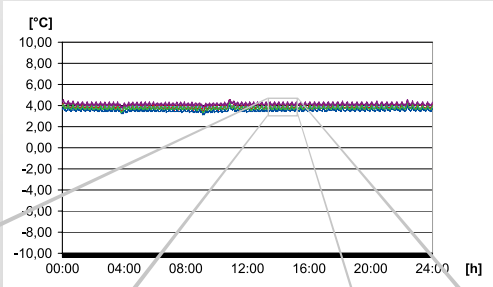
Extensive tests and precise calibration

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

Interior description	Refrigerators										Freezers	
	MED 85 DIN	MED-85	MED-100	MED-125	MED-200	MED-288	MED-340	MED-468	MED-520	MED-600-S	FROSTER-MED-70	FROSTER-MED-95
Capacity	80 l	80 l	95 l	120 l	170 l	280 l	330 l	460 l	500 l	600 l	70 l	95 l
Temperature setting/temperature range Large temperature ranges are available for storage.	+2 to +12 °C	+2 to +12 °C	+2 to +20 °C	+2 to +20 °C	+2 to +20 °C	+2 to +20 °C	+2 to +20 °C	+2 to +20 °C	+2 to +20 °C	+2 to +20 °C	−15 to −22 °C	−5 to −25 °C
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.	○	○	●	○	●	●	●	●	●	○	○	●
RJ45 interface (RS485 interface only for MED 600-S) 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.	○	○	●	○	●	●	●	●	●	○	○	●
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	38 °C	38 °C	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 temperature in the entire interior.	○	●	●	●	●	●	●	●	●	●	○	○
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. Condensate evaporates automatically.	●	●	●	●	●	●	●	●	●	●	○	○
Number of drawers Standard number of integrated plastic drawers with stops. The drawers are equipped with adjustable length and cross dividers.	3	3	3	3	4	5	9	10	12	13	○	1
Number of shelves Standard number of integrated plastic-coated shelves.	1	1	1	1	1	○	○	○	○	○	4	2
Moulded-in shelves Interior containers made from impact-resistant plastic with moulded-in shelves guarantee a particularly high level of stability. The wire shelves and drawers can be easily inserted at the desired heights.	●	●	●	●	○	○	○	○	○	○	●	●
Gibs For interior containers made from aluminium, gibs allow a particularly varied use of the interior. Wire shelves and drawers can be positioned as desired every 15 mm.	●	○	○	○	●	●	●	●	●	○	○	○
Undercounter installation Models of this type can be integrated into existing furniture and are therefore particularly space saving. When the system is installed, ensure that the refrigerating machine is sufficiently ventilated.	●	●	●	●	●	○	○	○	○	●	●	●
Comfortable access Now you no longer have to jerk doors open – all you need is one finger!	○	○	○	○	○	●	●	●	○	○	○	○
Self-closing door Doors left open accidentally are a thing of the past.	○	○	○	○	○	○	●	●	●	○	○	○

● = Yes, ○ = No

Our product specifics

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 current product design:

Display

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

Self-closing door

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

Flexible interior features

Equipment of refrigerators and freezers according to your needs: whether additional drawers, shelves, wire baskets or condensation containers – configure your individual device.

MED-100

Low-noise compressor

Our KIRSCH low-noise compressor reduces the noise level to 40 dB (corresponds to noise level I; sounds perception: whisper).

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.

MED-340

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

Stainless Steel-drawers

Four stainless steel-drawers on roller runners with locks

MED-520

Transportable design

Through the use of steering and fixed castors your cooling unit is mobile so you can easily change the installation site.
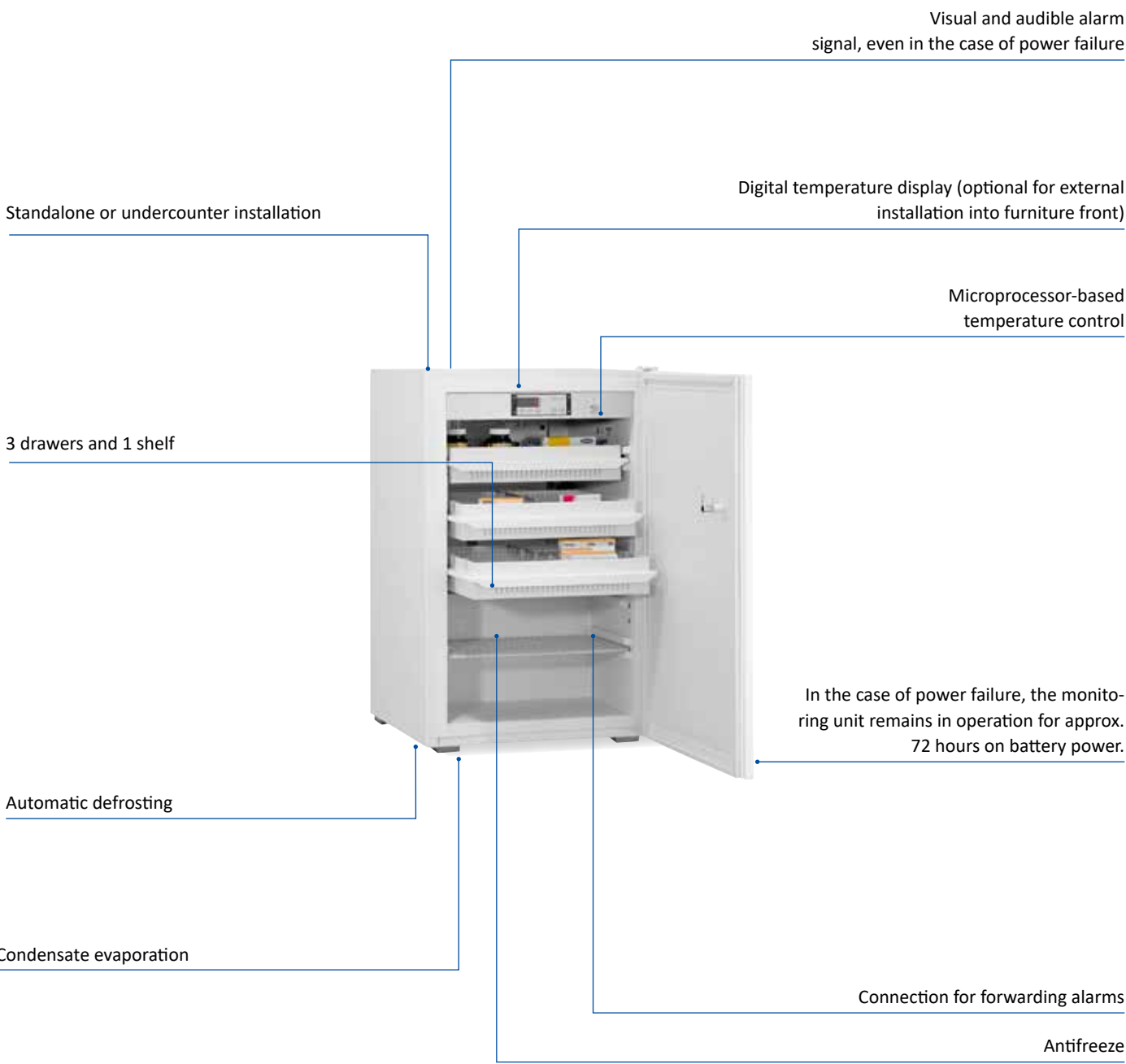
MED-200

Visual and audible alarm
signal, even in the case of power failure

Standalone or undercounter installation

Digital temperature display (optional for external installation into furniture front)

Microprocessor-based temperature control

3 drawers and 1 shelf

In the case of power failure, the monitoring unit remains in operation for approx. 72 hours on battery power.

Automatic defrosting

Condensate evaporation

Connection for forwarding alarms

Antifreeze

See **www.kirsch-medical.com** for the **installation drawing.**

MED-85 according to DIN 58345
Smallest-available pharmaceutical refrigerator according to DIN 58345 as a standalone or undercounter installation.

MED-85 DIN

according to DIN 58345

80 l   +2 to +12 °C   38

- **External housing** made from galvanised sheet steel (rustproof), 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 three drawers with stops and a plastic-coated 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 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 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.)	100 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	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 32 kg, gross weight 38 kg

Optional equipment

- **Digital temperature display.**
- **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.

MED-85

80 l | +2 to +12 °C | 38 | x3 | x1

Variable temperature selection

3 drawers and 1 shelf

Standalone or under-counter installation

Automatic defrosting

Condensate evaporation

- **External housing** made from galvanised sheet steel (rustproof), 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 three drawers with stops and a plastic-coated 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 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 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.

See **www.kirsch-medical.com** for the **installation drawing.**

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

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	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

Optional equipment

- **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.

MED-100

951 **+2 to +20 °C** **USB**

according to DIN 58345

- **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** 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 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 hinge** 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 deviations 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).
- **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. Inlet air and exhaust air flow through the ventilation slits at the front.
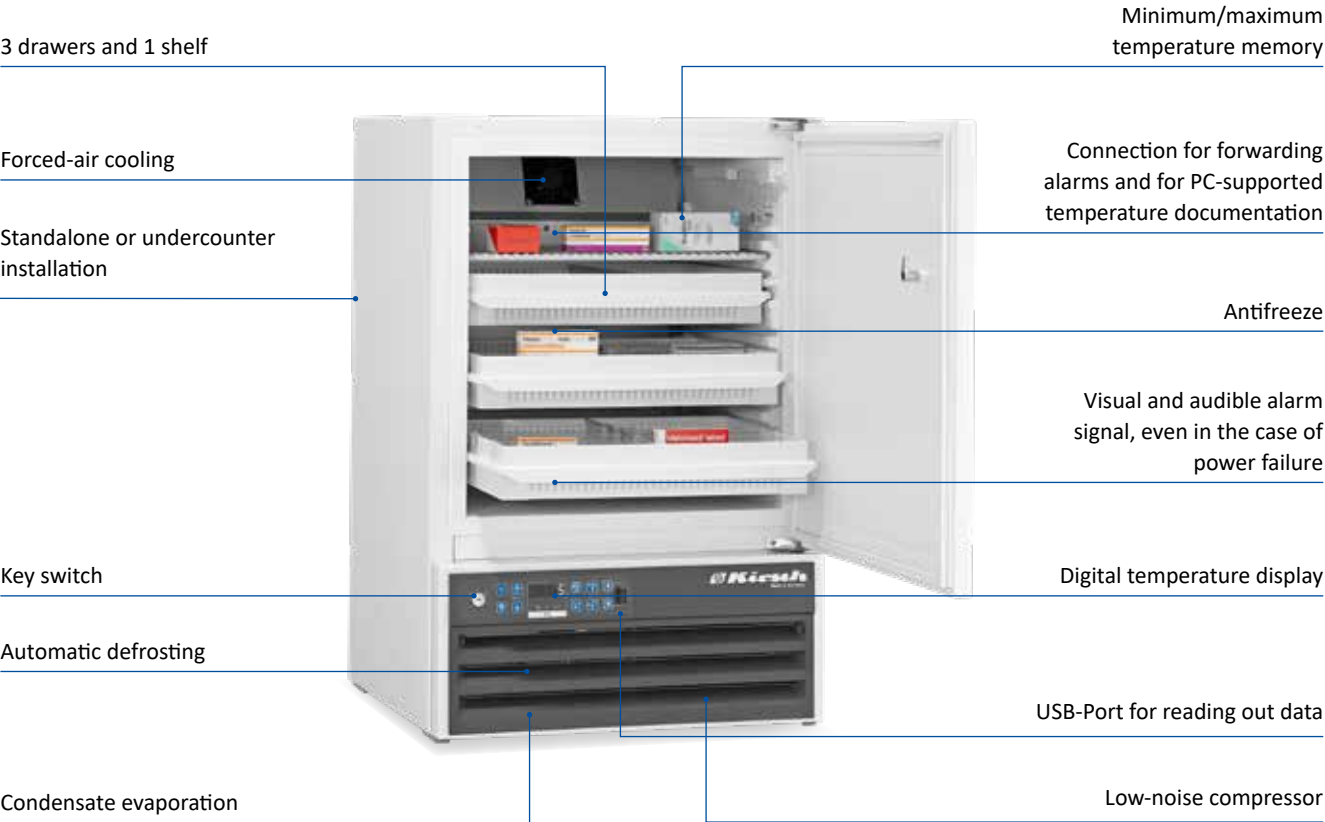- **Low-noise compressor** reduces noise by 10 dB to 40 dB (corresponds to noise level I; sound perception: whisper).

3 drawers and 1 shelf

Forced-air cooling

Standalone or undercounter installation

Key switch

Automatic defrosting

Condensate evaporation

Minimum/maximum temperature memory

Connection for forwarding alarms and for PC-supported temperature documentation

Antifreeze

Visual and audible alarm signal, even in the case of power failure

Digital temperature display

USB-Port for reading out data

Low-noise compressor

See **www.kirsch-medical.com** for the **installation drawing.**

Low-noise compressor
Reduces noise by 10 dB to 40 dB (corresponds to noise level I; sounds perception: whisper).
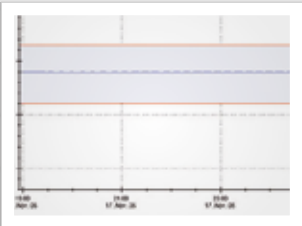
High temperature precision even when built in thanks to forced-air cooling and a high-performance, ventilated refrigerating machine.

Specification

Capacity	95 litres
Temperature setting	approx. +2 °C to +20 °C
Voltage	220 – 240 V, 50 Hz
Power consumption	75 watts
Normal consumption	0.67 kWh/24 h
Admissible ambient temperature	from +10 °C to +38 °C
Heat emission (max.)	183 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

(measured values based on Eccol R600a)

Optional equipment

- **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 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).
- **PC-KIT-NET** (network capable version)
- **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.
- **60 Hz cooling machinge** upon request

MED-125

according to DIN 58345

Standalone or undercounter installation

Digital temperature display in the interior

Antifreeze

3 drawers and 1 shelf

Visual and audible alarm signal, even in the case of power failure

Connection for forwarding alarms

Automatic defrosting

Condensate evaporation

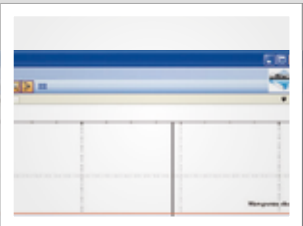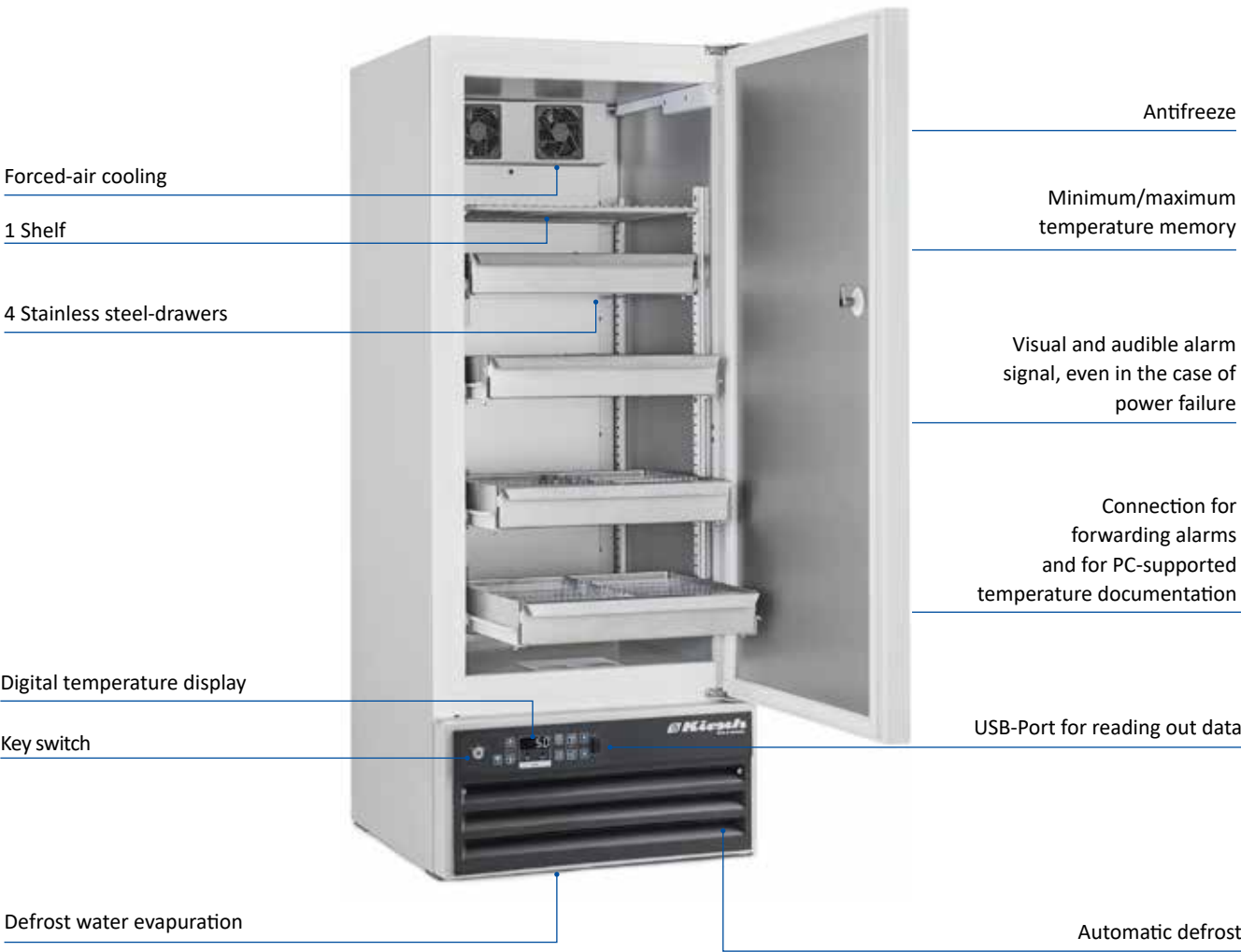See **www.kirsch-medical.com** for the **installation drawing.**

- **External housing** made from galvanised sheet steel (rustproof), with white, anti-scratch powder coating. Length of plug cable: approx. 2.8 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 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 hinge** on the right-hand side (by default, see illustration), or the left-hand side, can be retrofitted.
- **Re-circulating air cooling** with two axial blowers, switches off automatically when you open the door, ensures a uniform temperature and reduces temperature reductions to a minimum.

- **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**: visual and audible alarm signal, even in the case of temperature deviations 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).
- **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	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 tempeMeasured values based onature 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 sufficient after installation, or if 60 Hz operation is intended.
- **GSM-Module** for alarm text message transmission (e.g., to a mobile phone).
- **Temperature documentation:**
  - 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.

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-200

170l | +2 to +20 °C | USB | 38 | x4 | x1

according to DIN 58345

Antifreeze

Forced-air cooling

Minimum/maximum temperature memory

1 Shelf

4 Stainless steel-drawers

Visual and audible alarm signal, even in the case of power failure

Connection for forwarding alarms and for PC-supported temperature documentation

Digital temperature display

Key switch

USB-Port for reading out data

Defrost water evapuration

Automatic defrost

- **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 steel sheet (rust protected), with white, scratch-proof powder coating. Plug cable length: approx. 2,8 m.
- **Adjustable feet** positioned at the front to compensate for uneven floors.
- **Interior** made from smooth aluminium with colourless protective coating. Gibs (15 mm increments) for flexible interior arrangement.
- **Interior equipment** consists of four drawers on roller runners with locks and a plastic-coated shelf with support rails. There is one adjustable length divider and six adjustable cross dividers per drawer. Storage surface per drawer = 0.13 m².
- **Extra-thick insulation,** 50 mm thick, made from high-quality, pressure-formed and environmentally friendly material. Energy saving.
- **Door** with easy-to-replace plastic magnetic seal frame, lockable.
- **Door stop** can be switched from side to side (even retrospectively), right-hand side as standard across the series.

- **Re-circulating air cooling** with two axial blowers, switches off automatically when you open the door, ensures a uniform temperature and reduces temperature reductions to a minimum
- **Automatic defrost** with time limit and temperature monitoring.
- **Defrost water evaporation** in the refrigerating machine room.
- **Electronic temperature control** protected against tampering by means of key switches. Membrane keyboard with digital temperature display and minimum/maximum temperature memory.
- **Data documentation** can be read via USB interface with KIRSCH Datanet software.
- **Warning functions** with visual and audible alarm signal in the case of temperature deviations. Power failure alarm, the monitoring unit remains in operation for approx. 72 hours on battery power.
- **Alarms can be forwarded** using the potential-free contact (e.g. to a mobile telephone with optional GSM module or to central process control).
- **Antifreeze** against sub-zero temperatures.
- **Compressor ventilation** will be effected through front grill

Specifications

Capacity	170 Liter
Temperature setting	+2 °C to +20 °C
Voltage	220 – 240 V, 50 Hz
Power Consumption	145 Watt
Normal Consumption	0,98 kWh/24 h
Admissible ambient temperature	from +10 °C to +38 °C
Heat emission (max.)	230 Watt
Overall dimensions (including distance from wall)	54 x 54,6 x 122 cm (w x d x h)
Interior dimensions	43 x 43 x 87 cm (w x d x h)
Usable dimensions	41 x 38 x 73 cm (w x d x h)
Exterior dimensions with door open at 90°	54 x 105 cm (w x d)
Shelf size	38 x 34 x 6 cm (w x d x h)
Max. load: drawer/shelf	25 kg/25 kg
Weight	Net weight 69 kg, gross weight 80 kg

(measured values based on Eccol R600a)

Optional equipment

- **Tabletop**
- **Decorative door** frame for securing the customer's decorative plates
- **Door fitting**
- **Transportable design**
- **Additional length and cross dividers**
- **Shelf** with support rails
- **Defrost water container** can be emptied manually if evaporation is not desired (e.g. in an operating theatre)
- **GSM module** for alarm transmission by SMS (e.g. to a mobile telephone)
- **Temperature documentation:**
  - PT 100 or PT 1000 temperature sensor, 4-pin design, class 1/3 B, including built-in reference body (measurement bottle or refrigerating block).
  - Mechanical pen-recording thermometer with two wax paper strips.
- **60 Hz cooling machinge** upon request

High temprature precision
Accurate temperature control in refrigerated areas thanks to two standard Pt-1000 sensors

Low-noise compressor
Low noise compressor for dynamically ventilated refrigerating machine

USB-Port for reading out data

Digital temperature display

Antifreeze

Key switch

Minimum/maximum
temperature memory

Forced-air cooling

Visual and
audible alarm signal,
even in the case of power failure

5 drawers

Comfortable access

Connection for
forwarding alarms
and for PC-supported
temperature documentation

Automatic defrosting

Condensate evaporation

MED-288

according to DIN 58345

| 280 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 (rustproof), with white, anti-scratch powder coating. Length of the plug cable: approx. 2.8 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 hinge** on the right-hand side (by default, see illustra-

tion), 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 deviations 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).

■ **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

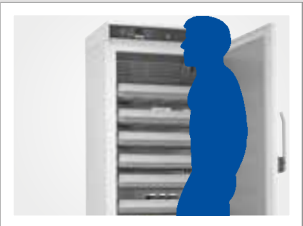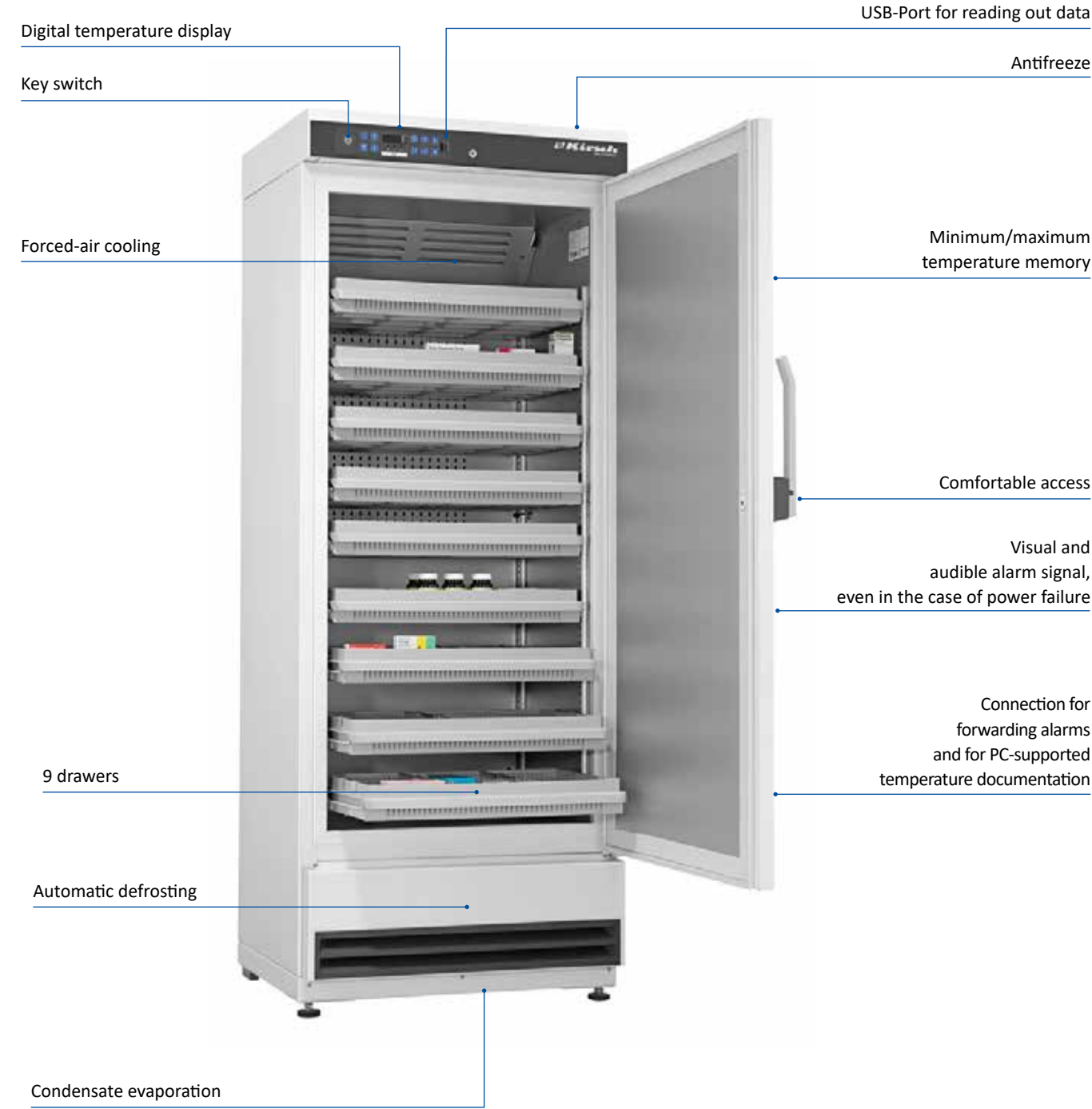|	
Capacity	280 litres
Temperature setting	approx. +2 °C to +20 °C
Voltage	220 – 240 V, 50 Hz
Power consumption	100 watts
Normal consumption	0,69 kWh/24 h
Admissible ambient temperature	from +10 °C to +38 °C
Heat emission (max.)	173 watts
Exterior dimensions (including door handle and distance from wall)	w x d x h = 67 x 70 x 124 cm
Interior dimensions	w x d x h = 53 x 50 x 100 cm (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

(measured values based on Eccol R600a)

Optional equipment

■ **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** 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).
■ **PC-KIT-NET** (network capable version)
■ **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.
■ **60 Hz cooling machinge** upon request

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.

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

Digital temperature display

Key switch

USB-Port for reading out data

Antifreeze

Forced-air cooling

Minimum/maximum temperature memory

Comfortable access

Visual and audible alarm signal, even in the case of power failure

Connection for forwarding alarms and for PC-supported temperature documentation

9 drawers

Automatic defrosting

Condensate evaporation

MED-340

330 l | **+2 to +20 °C** | **USB**

according to DIN 58345

- **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** 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.
- **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 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 deviations 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).
- **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	330 litres
Temperature setting	approx. +2 °C to +20 °C
Voltage	220 – 240 V, 50 Hz
Power consumption	108 watts
Normal consumption	0,67 kWh/24 h
Admissible ambient temperature	from +10 °C to +38 °C
Heat emission (max.)	164 watts
Exterior dimensions (including 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

(measured values based on Eccol R600a)

Optional equipment

- **Glass door with lock.**
- **LED-Illumination** mounted at the top or on side wall.
- **Decorative door frame** for attaching the customer's decorative plates.
- **Equipped with castors.**
- **Drawers on roller runners** (a maximum of twelve 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-STICK (network capable version)
  - 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.
- **60 Hz cooling machine** upon request

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.

Digital temperature display

Key switch

Forced-air cooling

10 drawers

Automatic defrosting

Condensate evaporation

USB-Port for reading out data

Antifreeze

Minimum/maximum temperature memory

Visual and audible alarm signal, even in the case of power failure

Comfortable access

Connection for forwarding alarms and for PC-supported temperature documentation

Low-noise compressor

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

Alarm +2 °C
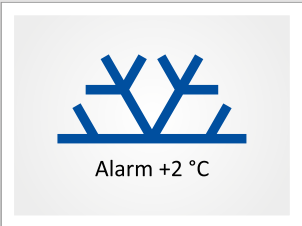
Reliable antifreeze
against sub-zero temperatures. The refrigerating machine is switched off by the electronics.

MED-468

460 l | +2 to +20 °C | USB

according to DIN 58345

- **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** 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.
- **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 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 power failure. In the case of temperature deviations and 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).
- **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

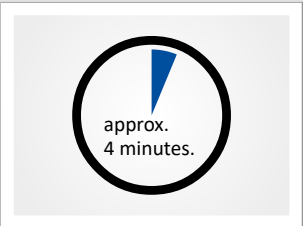|	
Capacity	460 litres
Temperature setting	approx. +2 °C to +20 °C
Voltage	220 – 240 V, 50 Hz
Power consumption	190 watts
Normal consumption	0,91 kWh/24 h
Admissible ambient temperature	from +10 °C to +38 °C
Heat emission (max.)	293 watts
Exterior dimensions (including door handle and distance from wall)	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

(measured values based on Eccol R600a)

Optional equipment

- **Glass door with lock.**
- **LED-Illumination** mounted at the top or on side wall.
- **Decorative door frame** for attaching the customer's decorative plates.
- **Equipped with castors.**
- **Drawers on roller runners** (a maximum of twelve 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).
- **PC-KIT-NET** (network capable version)
- **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.
- **60 Hz cooling machine** upon request

Digital temperature display

Key switch

USB-Port for reading out data

Antifreeze

Minimum/maximum temperature memory

Visual and audible alarm signal, even in the case of power failure

Forced-air cooling

Comfortable access

Connection for forwarding alarms and for PC-supported temperature documentation

12 drawers

Automatic defrosting

Condensate evaporation

MED-520

according to DIN 58345

500 l | **+2 to +20 °C** | **USB** | @ | 38 | | | | x12 | | | | |

- **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. 3 m.
- **Equipped with castors.**
- **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.
- **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 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.
- **Data documentation** can be read via USB interface with KIRSCH Datanet software
- **Warning functions** with visual and audible alarm signal in the case of temperature deviations 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 the potential-free contact (e.g., to a mobile phone with optional GSM-Module or to a control centre).
- **Antifreeze** against sub-zero temperatures.
- **Ventilation-enforced refrigerating machine**, hermetically sealed, energy saving, low noise, easy to service.
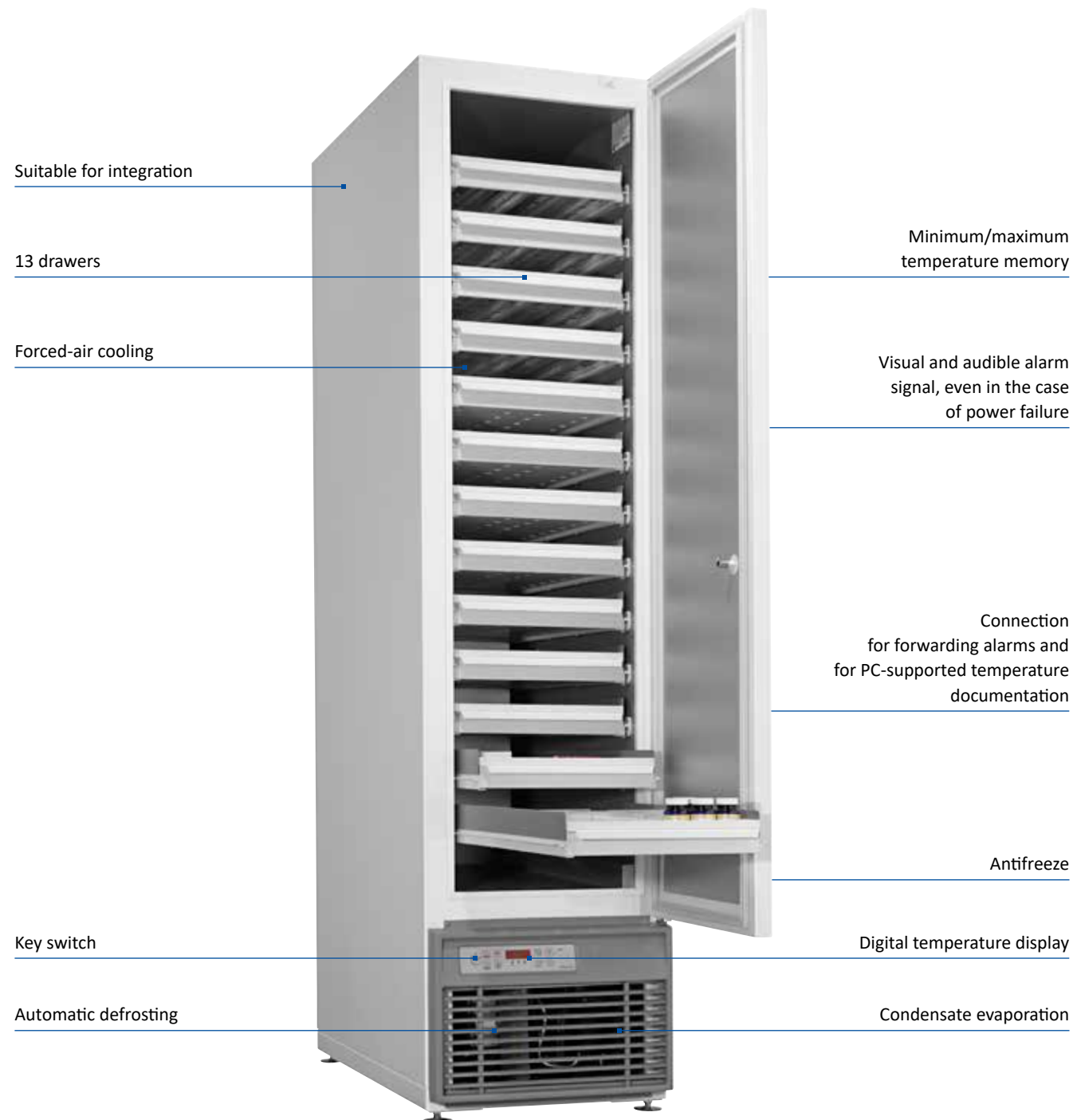
Specification

Capacity	500 litres
Temperature setting	approx. +2 °C to +20 °C
Voltage	220 – 240 V, 50 Hz
Power consumption	260 watts
Normal consumption	1,05 kWh/24 h
Admissible ambient temperature	from +10 °C to +38 °C
Heat emission (max.)	560 watts
Exterior dimensions (including door handle and distance from wall)	w x d x h = 77 x 76 x 195.5 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 153 kg, gross weight 174 kg

(measured values based on Eccol R600a)

Optional equipment

- **Glass door with lock.**
- **LED-Illumination** mounted on side wall.
- **Adjustable** feet to compense uneven floors.
- **Decorative door frame** for attaching the customer's decorative plates.
- **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).
- **PC-KIT-NET** (network capable version)
- **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.
- **60 Hz cooling machine** upon request

approx. 4 minutes.

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

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

Suitable for integration

13 drawers

Forced-air cooling

Minimum/maximum
temperature memory

Visual and audible alarm
signal, even in the case
of power failure

Connection
for forwarding alarms and
for PC-supported temperature
documentation

Antifreeze

Key switch

Automatic defrosting

Digital temperature display

Condensate evaporation

*Pic. with 13 drawers and old version of
the cover plate, the new one is black

See **www.kirsch-medical.com** for
the **installation drawing.**

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 12 medication drawers with stops, on roller runners and transparent bases. There is one fixed cross divider, two lenght dividers 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 hinge** on the right-hand side (by default, see illustra-tion), 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.
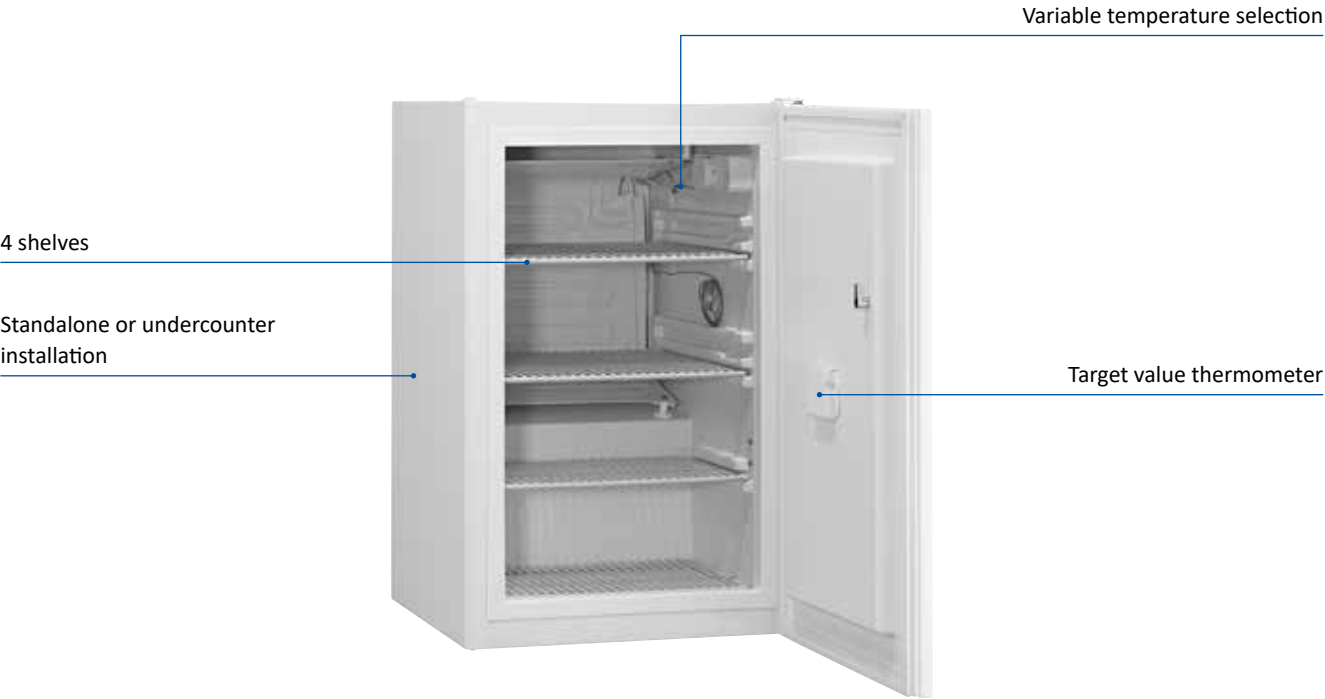
■ **Condensate evaporation** in the refrigerating machine interior.
■ **Key switch** protected control panel against tampering. Membrane keyboard with digital temperature display and minimum/maximum temperature memory.
■ **Warning functions** with visual and audible alarm signal in the case of temperature deviations 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 tempera-ture 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.
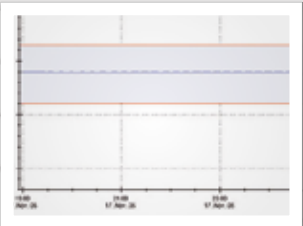
Specification

| Capacity	600 litres
Temperature setting	approx. +2 °C to +20 °C
Voltage	220 – 240 V, 50 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

Optional equipment

■ **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.
■ **60 Hz cooling machine** upon request

FROSTER-MED-70

70 l | -15 to -22 °C

Variable temperature selection

4 shelves

Standalone or undercounter installation

Target value thermometer

- **External housing** made from galvanised sheet steel (rustproof), 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 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 hinge** on the right-hand side (by default, see illustra-tion), 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.
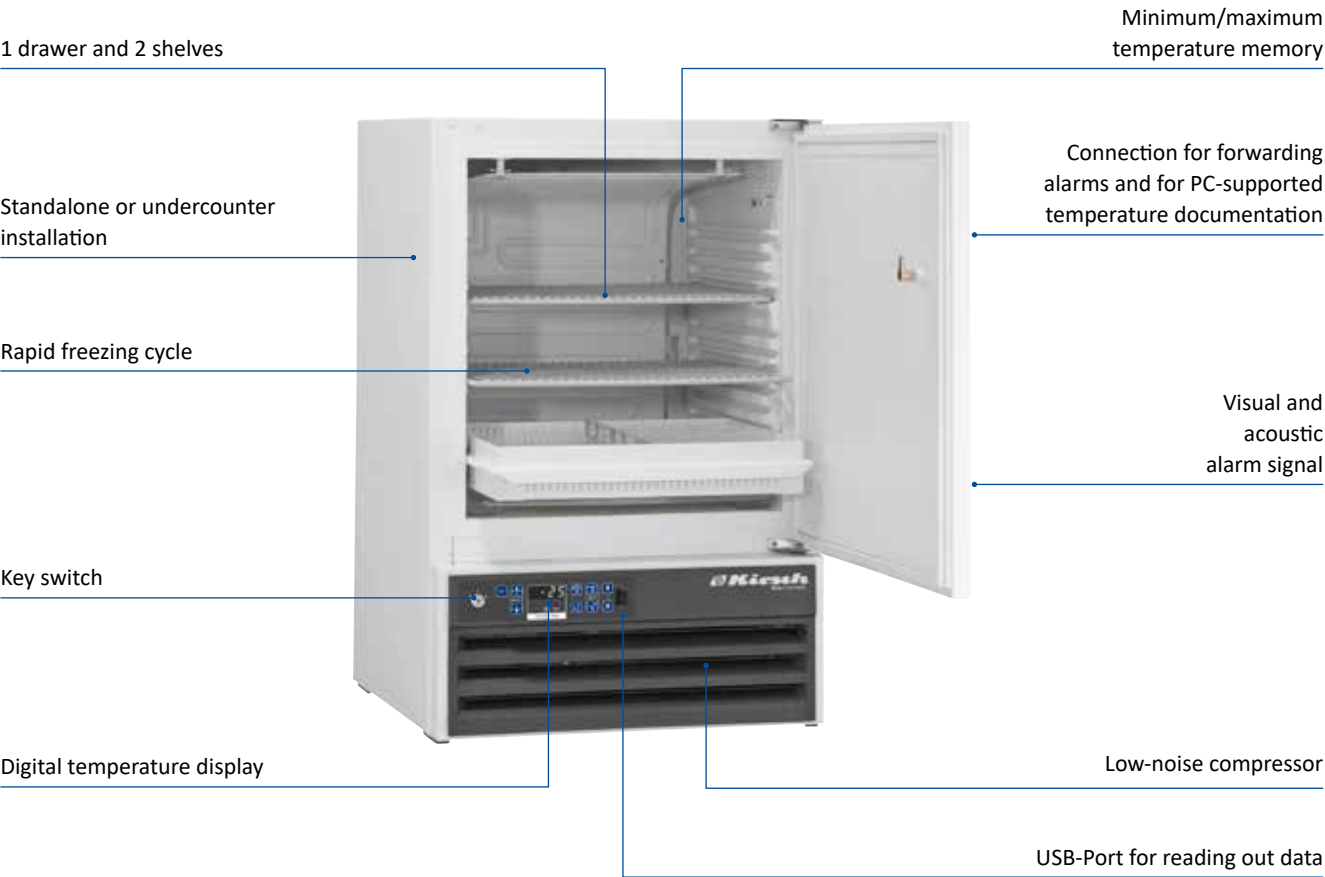- **Statically ventilated refrigerating machine,** hermetically sealed, energy saving, low noise, easy to service.

Specification

Capacity	70 litres
Temperature setting	approx. -15 °C to -22 °C
Voltage	220 – 240 V, 50 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	20.5 x 35.2 cm / 31.5 x 35.3 cm
Max. load drawer/shelf	9.5 kg/25 kg
Weight	Net weight 34 kg, gross weight 42 kg

Optional equipment

- **Decorative door frame** for attaching the customer's decorative plates.
- **Door fitting.**
- **Equipped with castors.**
- **Drawer instead of shelf** (w x d x h = 29 x 26 x 5 cm).
- **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.
- **60 Hz cooling machinge** upon request

Constant temperature
Maintains the interior temperature (maximum: –22 °C) even in the case of greater ambient temperatures of up to +32 °C
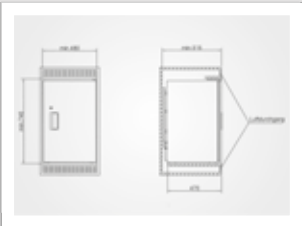
Suitable for integration
Compact freezer designed for the integration into furniture. Can also be used as a stand-alone device.

FROSTER-MED-95

1 drawer and 2 shelves

Minimum/maximum temperature memory

Standalone or undercounter installation

Connection for forwarding alarms and for PC-supported temperature documentation

Rapid freezing cycle

Visual and acoustic alarm signal

Key switch

Digital temperature display

Low-noise compressor

USB-Port for reading out data

See **www.kirsch-medical.com** for the **installation drawing.**

NEW

Low-noise compressor
Reduces noise to 40 dB (corresponds to noise level I; sounds perception: whisper).

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

- **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** 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 plastic-coated shelves. There is one adjustable length divider and six adjustable cross dividers per drawer. Storage surface per drawer = 0.13 m².
- **Extra-thick 50-mm insulation**, made from high-quality, compression-moulded and environmentally friendly material. Energy saving.
- **Door** with easy-to-replace plastic magnetic seal frame, lockable.

- **Door hinge** on the right-hand side (by default, see illustra-tion), 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 deviations and power failure.
- **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.
- **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.
- **Low-noise compressor** reduces noise by 10 dB to 40 dB (corresponds to noise level I; sound perception: whisper).

Specification

Capacity	95 litres
Temperature setting	approx. -5 °C to -25 °C
Voltage	220 – 240 V, 50 Hz
Power consumption	110 watts
Normal consumption	1,73 kWh/24 h
Admissible ambient temperature	from +10 °C to +32 °C
Heat emission (max.)	153 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	43 x 36 cm
Drawer inner dimensions	w x d x h = 40 x 32 x 5.6 cm
Max. load drawer/shelf	13 kg/25 kg
Weight	Net weight 42 kg, gross weight 50 kg

(measured values based on Eccol R600a)

Optional equipment

- **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).
- **PC-KIT-NET** (network capable version)
- **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.
- **60 Hz cooling machinge** upon request

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.

Intranet

Several client PCs

Internet

Several client PCs

Server

The KIRSCH-PC-KIT in conjunction with 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**).

PC-KIT-NET

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

Several client PCs

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

KIRSCH PC-KIT

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

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

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.

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.

Single workstation PC

Disc-type thermometer

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

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.

Pen-recording thermometer

The easiest method to retrofit temperature documentation.

External temperature recording

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

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

Leaving with a secure feeling – Text message alarm forwarding

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

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

Technical options

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

Glass door 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

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
Optimised 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

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

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