

Translation of Original Operating Instructions

for the following products:

MED-85-DIN

MED-125



The refrigerator contains flammable refrigerant

Observe the warning on page 2



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Contents

Important information.....	2
1. General functional description.....	3
2. Proper use	3
3. Safety information	3
Transport and set-up.....	3
Commissioning and operation.....	4
Temporary decommissioning	5
Disposal of obsolete devices	5
4. Overview of device control and display unit	6
5. Commissioning.....	7
6. Alarms.....	9
7. Modifying temperature setting and temperature warning limits:	10
8. Error and status messages	11
9. Digital temperature display prepared for external installation (optional).....	12
EC Declaration of Conformity	13
Installation drawing MED-85.....	14
Installation drawing MED-125.....	15

Important information

Important information

Read and observe the information contained in the following Translation of the Original Operating Instructions in order to avoid personal injuries (e.g. suffocation, electric shocks) and property damage (e.g. fire, short circuits). Store this Translation of the Original Operating Instructions at the device's location. This document serves as an information source for all users to avoid damage.

1. General functional description

Thank you very much for choosing KIRSCH. Our refrigerating machines and freezers offer the highest possible reliability, minimal temperature differences and user-friendly operation thanks to:

- A particularly thick insulated interior,
- A refrigerating machine with interior evaporator for cooling,
- An electronic temperature controller,
- Electronic monitoring independent of the temperature controller. This monitoring provides a visual and audible alarm in the case of the faults stated hereinafter.

2. Proper use

Proper use of KIRSCH refrigerators and freezers is as follows:

Models with the designation

- MED are intended for commercial storage of medications that must be refrigerated

3. Safety information

Transport and set-up

- The device may only be transported upright.
- Set up the device in a dry, well-ventilated location away from sources of heat. The refrigerators fulfil climate category SN and ST, and can therefore be operated at ambient temperatures of +10°C to +38°C.
- Ensure that children cannot access the device. After you have successfully set up the device, remove the key from the door lock to prevent staff becoming locked in or suffocated.
- Do not leave packaging material unattended. Plastic foil, plastic bags, cardboard packaging, polystyrene, etc. can become dangerous toys for children. Danger of suffocation!
- The device must stand in a fixed and level position. On devices with adjustable feet, adjust these feet to suit the floor.
- The connection cable must not contain kinks or be trapped. You must not operate devices with a faulty connection cable! If this is the case, contact customer services.
- The device must be sufficiently ventilated. The device will not function without sufficient ventilation. Fire hazard!
 - Adhere to the minimum wall clearance as designated by the spacer.
 - If the device is to be installed, this work must be carried out by qualified personnel only. Always ensure that the refrigerating machine is sufficiently ventilated. Enquire at KIRSCH, if necessary.
- Device weights:

MODEL	Weight		
	net	gross	Glass door
MED-85-DIN	31 kg	37 kg	-
MED-125	46 kg	50 kg	+ 5 kg

Commissioning and operation

- Do not commission a device that has been damaged during transport or set-up. If in doubt, contact the supplier.
- Do not damage parts of the refrigerant circuit. If the evaporator pipes are pierced by a sharp object or become kinked, or the surface finish is scratched off, refrigerant spraying out can cause eye injuries.
- The refrigerator contains flammable refrigerant. An intervention in the refrigerant circuit is not allowed. In case of service the complete cooling unit must be replaced. Also note the type plates, in the interior of the refrigerator and directly on the cooling unit.
- Modifications and repairs to the device must be carried out by qualified staff only.
- Connecting the device
 - The electrical connection conditions must match those stated on the type plate of the refrigerating machine.
 - KIRSCH refrigerating machines and freezers are ready-to-plug-in devices, operate at 220-240 volts, and at 50 Hz alternating current. Special designs that deviate from these specifications are available; refer to the type plate in the upper right of the interior!
 - Connect the device using a correctly installed plug with an earth connection.
 - Fuse: 10 amp.
 - KIRSCH refrigerating machines and freezers are designed according to protection class I.
- Cleaning
 - Clean the interior and exterior of the device before commissioning and at regular intervals thereafter.
 - Before you clean the device, switch it off and pull out the mains plug.
 - Cleaning water must not enter the electrical components.
 - Clean the interior container and equipment with warm water and some mild detergent. Cleaning agents containing sand or acid, or chemical solutions are unsuitable.
 - Wipe down the door seal with clear water and rub this dry thoroughly.
 - You can remove drawers and wire shelves for cleaning.
 - Treat white-coated exterior housing with a paint cleaner and care product.
 - To ensure that the refrigerating machine's performance is not affected by dust, clean the condenser with a brush or vacuum cleaner as appropriate according to the build-up of dust but at least every 6 months. The condenser is a black wire part, located on the external back wall or in the motor area, depending on the model.
- Maintenance
 - KIRSCH refrigerating machines and freezers are maintenance-free.
 - However, observe the prior section entitled "Cleaning".

- Repair
 - Repairs must be carried out by expert personnel only. Improper repairs can lead to severe personal injuries (e.g. electric shocks) or property damage (e.g. fire, damage of goods to be cooled).
 - The refrigerator contains flammable refrigerant. An intervention in the refrigerant circuit is not allowed. In case of service the complete cooling unit must be replaced. Also note the type plates, in the interior of the refrigerator and directly on the cooling unit.
 - If the device malfunctions, switch it off and pull out the mains plug.
- Observe the maximum load of the drawers and shelves: 100 kg/m² compliant with DIN 58345. If the load-bearing system breaks as a result of these loads being exceeded, this can lead to personal injuries depending on the goods being cooled!
- Store the keys for the door and control where only authorised staff can access them.
- The emission sound pressure level on all models does not exceed 70 dB(A).

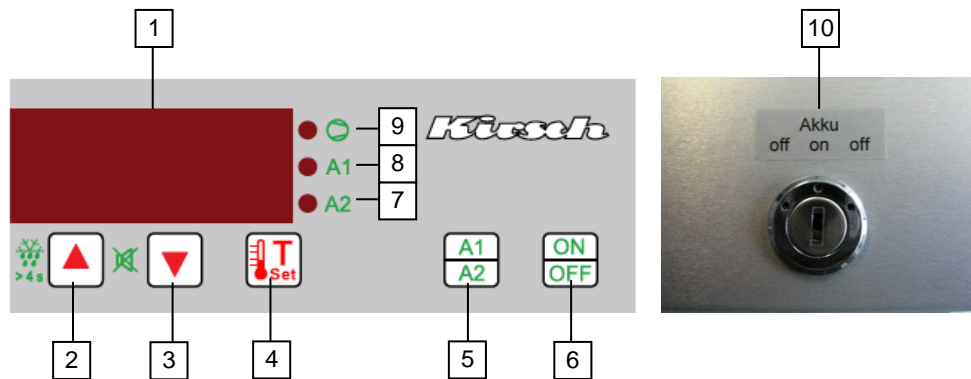
Temporary decommissioning

- Leave the door open in order to avoid the formation of odours and mould inside. Observe the section entitled "Cleaning".
- Remove the key from the door lock and store it out of the reach of children.
- Also observe the points entitled "Switching on" and "Switching off" in section 5, "Commissioning".

Disposal of obsolete devices

- Immediately render obsolete devices unusable. Pull out the main plugs and disconnect the connection cable. Remove or destroy locks to prevent children from locking themselves in while playing, as this could be fatal. Remove the door, if possible.
- Dispose of the battery in a proper manner at the designated disposal point. Ensure that the battery is not damaged, burnt or short-circuited. Risk of explosion!
- Contact your municipal waste disposal office for details of how to dispose of the device correctly. Ensure that the refrigerating machine's pipes do not become damaged. The refrigerant is flammable, it must be disposed of properly.

4. Overview of device control and display unit



- | | |
|--|--|
| <p>1 Display
See section "8" entitled "Error and status messages"</p> <p>2 Additional defrost</p> <p>3 Alarm off</p> <p>4 Call set interior temperature</p> <p>5 Upper and lower temperature warning limits</p> | <p>6 On and off button</p> <p>7 Lower temperature warning limit diode</p> <p>8 Upper temperature warning limit diode</p> <p>9 Compressor switching status</p> <p>10 Key switch
"off" position: Battery switched off
"on" position: Battery switched on
"off" position: Battery switched off</p> |
|--|--|

Information

A flashing right-side decimal point displays the current battery-charging process. The flashing point is no longer displayed when the battery is charged.

A flashing left-side decimal point signals that defrosting is commencing.

5. Commissioning

Before commissioning, observe the safety information from section 3 on set-up, operation, temporary decommissioning and final decommissioning.

- Switching on:
 - Switch on the battery for the network failure warning by using the key provided at the key switch. Ensure that you remove the key after you have switched on the device.
 - To switch on the device, hold down button (6) for approx. 4 seconds. When you commission the device, the ACC alarm is displayed, which disappears automatically after a maximum of 60 seconds. The interior temperature is shown in the display (1).
 - Push button (4) to call the set interior temperature.
 - A flashing right-side decimal point displays the current battery-charging process. The flashing point is no longer displayed when the battery is charged.

Information

After you have switched on the device, the temperature alarm is activated after the interior temperature has been achieved or after 2 hours, at the latest.

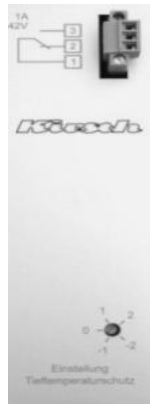
- Switching off:
 - To switch off the device, hold down button (6) for approx. 4 seconds.
 - Switch off the battery for the network failure warning by using the key provided at the key switch. Ensure that you remove the key after you have switched off the device.

WARNING!

Always switch off the battery separately from the refrigerating machine, otherwise the battery can become damaged.

- Battery for network-independent warning
 - Serves the warning facility for approx. 72 hours in the case of power failure.
 - The battery is monitored by charging automation.
 - When the "Acc" error message is displayed, replace the battery.
 - Technical data: Battery: 6 V, 4 Ah.

- Connect to central process control:
 - Connect to the remote warning system (e.g. GSM MODULE) via the floating alarm contact "X10" (triple-pole change-over contact). The contact is located on the control unit, mounted on the rear of the device (see illustration).



- The contact is designed for a maximum of 42 V, 1 A.
- Loading:
 - When the operating temperature has been achieved, you may load the device.
 - After the door has been closed, a vacuum is created in the interior due to the forced-in external air cooling down. Expect increased resistance when you open the door; therefore, open the door carefully.
- Defrost:
 - The device defrosts automatically every 12 hours. The defrost water is directed into an externally located pan and evaporates there automatically (excluding models with the optional defrost water pan for manual emptying).
 - Push button (2) to call additional defrosting.
 - On devices that are optionally supplied without defrost-water evaporation, you must inspect and manually empty the defrost-water tank regularly.
 - A flashing left-side decimal point signals that defrosting is commencing.

6. Alarms

Your KIRSCH refrigerating machine is equipped with alarm functions. The alarm is triggered visually by the control unit and audibly by the control in the machine room. You are also able to forward alarms via a remote warning contact; e.g. to a KIRSCH GSM module (optional) that sends the alarm message by text message.

- Temperature alarm (HI, LO alarm):
 - If the set temperature warning limits are exceeded or undercut, an audible signal sounds, the remote warning contact is triggered, and the current temperature flashes in the display (1) in alternation with the error message (see section 8).
 - Push button (3) to switch off the alarm sound. If the cause of the alarm is not rectified, the alarm sounds again every 30 minutes.
 - If the alarm sound is not switched off, but the error rectifies itself, the alarm no longer sounds. However, the display continues to flash. This indicates that an alarm had been triggered. Push button (3) to stop the display from flashing.
- Alarm triggering in the case of deviating temperatures:
 - The display shows the temperature of the goods to be cooled, not the air temperature in the interior. A sensor is used for this purpose, taking measurements on an electronic time-delay.
- Power-failure warning:
 - In the case of a power failure, an audible alarm sounds, the remote warning contact is triggered and the display (1) switches off and on to save power. During the switch-on phase, the display (1) shows the current temperature in alternation with the error message "PF" ('Power Fehler' = 'power failure').
 - The audible and visual alarm remains after the power failure until you acknowledge the alarm by pushing button (3).
 - You can acknowledge the audible alarm during the power failure by pushing button (3). The visual alarm is then displayed until power is re-established.
 - If you acknowledge the alarm and power supply is not re-established within 30 minutes, an audible alarm is output again. The monitoring unit remains in operation for approx. 72 hours.
- Alarm in the case of defective display and control unit: If the display unit and control unit are out of action, an audible alarm is triggered. You can switch off this alarm only by pulling out the mains plug.
- Also observe the information in section 8 entitled "Error and status messages".

7. Modifying temperature setting and temperature warning limits:

The values for the operating temperature and temperature warning limits are set at the factory in such a way as to ensure compliance with the valid DIN standard for the model. You must not change these values. The following table also contains these values. The refrigerating machine requires a certain amount of time to cool down to the set temperature. You can read the course of the temperature on the digital display or by using optional temperature documentation (e.g. KIRSCH DATALOG). The operating temperature is automatically maintained irrespective of changing ambient temperatures. The condition for this is that the ambient temperature is approx. 3°C above the set interior temperature.

WARNING!

Improper modifications to the temperature setting and warning limits can lead to irreparable damage to the goods to be cooled! If in doubt, contact our customer services!

- Changing the temperature setting:
 - Push button (4) to show the set interior temperature in the display (1).
 - To change the interior temperature, hold down button (4) and push buttons (2) and (3) to set the desired interior temperature.
- Changing the temperature warning limits:
 - Upper temperature warning limit: Hold down button (5) for approx. 4 seconds until diode (8) is illuminated. "A1" is shown in the display (1). Hold down button (4) and push buttons (2) and (3) to make the desired setting.

Switch to the lower temperature warning limit: Hold down button (5) again until diode (7) is illuminated. "A2" is shown in the display (1). Hold down button (4) and push buttons (2) and (3) to make the desired setting.

Push button (5) to leave programming mode.

Information

Set the upper temperature warning limit at least 3°C higher, and the lower temperature limit at least 3°C lower than the set internal temperature.




MODEL	Operating temperature ° C	Lower warning limit ° C	Upper warning limit ° C
MED-85-DIN	5	2	8
MED-125	5	2	8

8. Error and status messages

Error messages are shown in alternation with the current temperature. If several errors have occurred, they are displayed one after another. If there is no audible alarm, the error or status message is only an indication that there has been an error.

Display	Cause	Effect	Measure
OFF	Device switched off	Device connected to the mains; controller on standby	Switch on device, hold down button (6) for approx. 4 seconds
Hi	Temperature above warning limit A1	High-temperature alarm (possible causes: too many warm goods for cooling have been placed inside, or door was open too long)	Observe whether the state normalises within a short period. If this is not the case, there is a technical defect. Inform customer services
Lo	Temperature below warning limit A2	Low temperature alarm, safety facility triggered, monitoring circuit has switched off the refrigerating machine	Check whether the lower warning limit is correctly set and observe whether the state normalises within a short period. If this is not the case, there is a technical defect. Inform customer services
FIH or FIL	Cool-room sensor error, H = break or L = short circuit	Refrigerator controller switches off the refrigerating machine	Check sensor Inform customer services
F2H or F2L	Defrosting sensor error, H = break or L = short circuit	Defrosting is time-controlled	Check sensor Inform customer services
F3	Minus-temperature error from safety-facility sensor	Refrigerating machine continues to work Remote contact is triggered	Check sensor Inform customer services
6F5	The minus-temperature safety facility reports a recorded temperature of < 2°C	Refrigerating machine is switched off	Check whether the temperature is correctly set and observe whether the state normalises within a short period. If this is not the case, there is a technical defect. Inform customer services
EP	Data loss in parameter memory	Refrigerator controller switches off	Switch off device, hold down button (6) for approx. 4 seconds, and pull out the mains plug. Wait for 5 seconds. Insert the mains plug again and switch on the device. If the error has not been rectified, inform customer services
Acc	Battery not switched on or defective		Ensure the key switch is in the ON position. Replace battery and inspect connection, inform customer services
PF	Power failure	No cooling, alarm activated, remote contact is triggered	Check power supply
Right-side decimal point flashes	A flashing right-side decimal point signals the current battery-charging process. The display disappears when the battery is fully charged.		
Left-side decimal point flashes	A flashing left-side decimal point signals that defrosting is commencing.		

If you cannot rectify an error state immediately, transfer the goods to be cooled into another cabinet, and decommission the device until a service technician inspects the problem. When you contact customer services, state the device's serial number. You can find this on the type plate on the top right-hand side of the interior (see example).

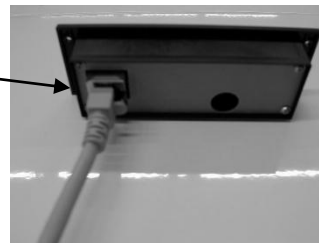
Modell Type	MED-468	Kühl-Inhalt Gross volume	460 Liter
Fabrik-Nr. Serial-No.	460 06 13071	Netto-Inhalt Net volume	440 Liter
Kältemittel Refrigerant	R134a 0,18 kg	Kühl-Aggregat Cooling system	VKD 2101KS
Wechselstrom Voltage	220-240V~50/60 Hz	Stromaufnahme Power input	1,0 A
Klimaklasse	1,2,3,4,5,6,7	Zusatzheizungen mit Leistungen>100 W	---
 		 Philipp Kirsch GmbH Okenstrasse 103 D-77652 Offenburg	



9. Digital temperature display prepared for external installation (optional)

On models with the "digital temperature display prepared for external installation in cabinet front" option, install the temperature display and connect it to the control unit.

The digital temperature display is supplied in a packed state in the device's interior.



Digital temperature display, rear view



Digital temperature display, front view

Information

Also observe the installation diagrams on pages 14 and 15. Install the temperature display and then commission the device as described in point 5 entitled "Commissioning".

EC Declaration of Conformity

Philipp Kirsch GmbH, Okenstraße 103, 77652 Offenburg, solemnly declares that the product described below complies with the protection requirements of the stated directives and standards at the time that the product was placed on the market.

Philipp Kirsch GmbH is responsible for the documentation.

Type designation:

1.7.3 of Directive 2006/42/EC

Manufacturer	Device category	Type	Serial numbers from serial number onwards
KIRSCH	Refrigerator	MED-85-DIN	080 31 00500
KIRSCH	Refrigerator	MED-125	125 30 00500

Directives:

- EC Low Voltage Directive 2006/95/EC
- Electromagnetic Compatibility 2004/108/EC.

Harmonised standards

- EN 55014-1:2006
- EN 61000-3-2:2006, EN 61000-3-3:2008
- EN 62233:2008, EN 55014-2:1997+A1:2001+ A2:2008
- EN 60335-2-89:2002 / A2:2007

Standards:

- EN 60335-2-89: 2010

Year of CE marking (Low Voltage Directive): 2014

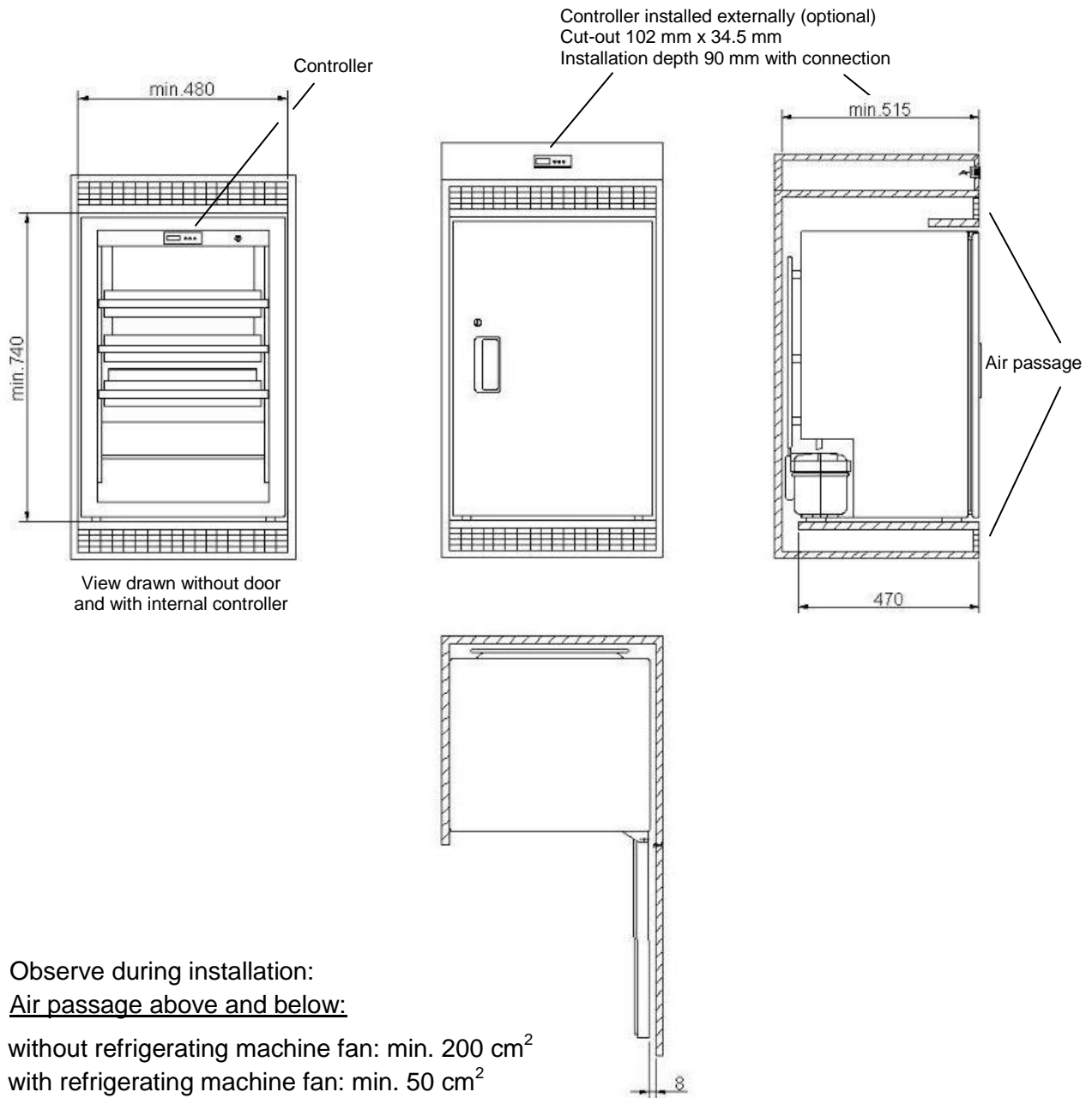
Offenburg, 01.10.2014



Dr. Jochen Kopitzke
Managing Director

MED-85 DIN

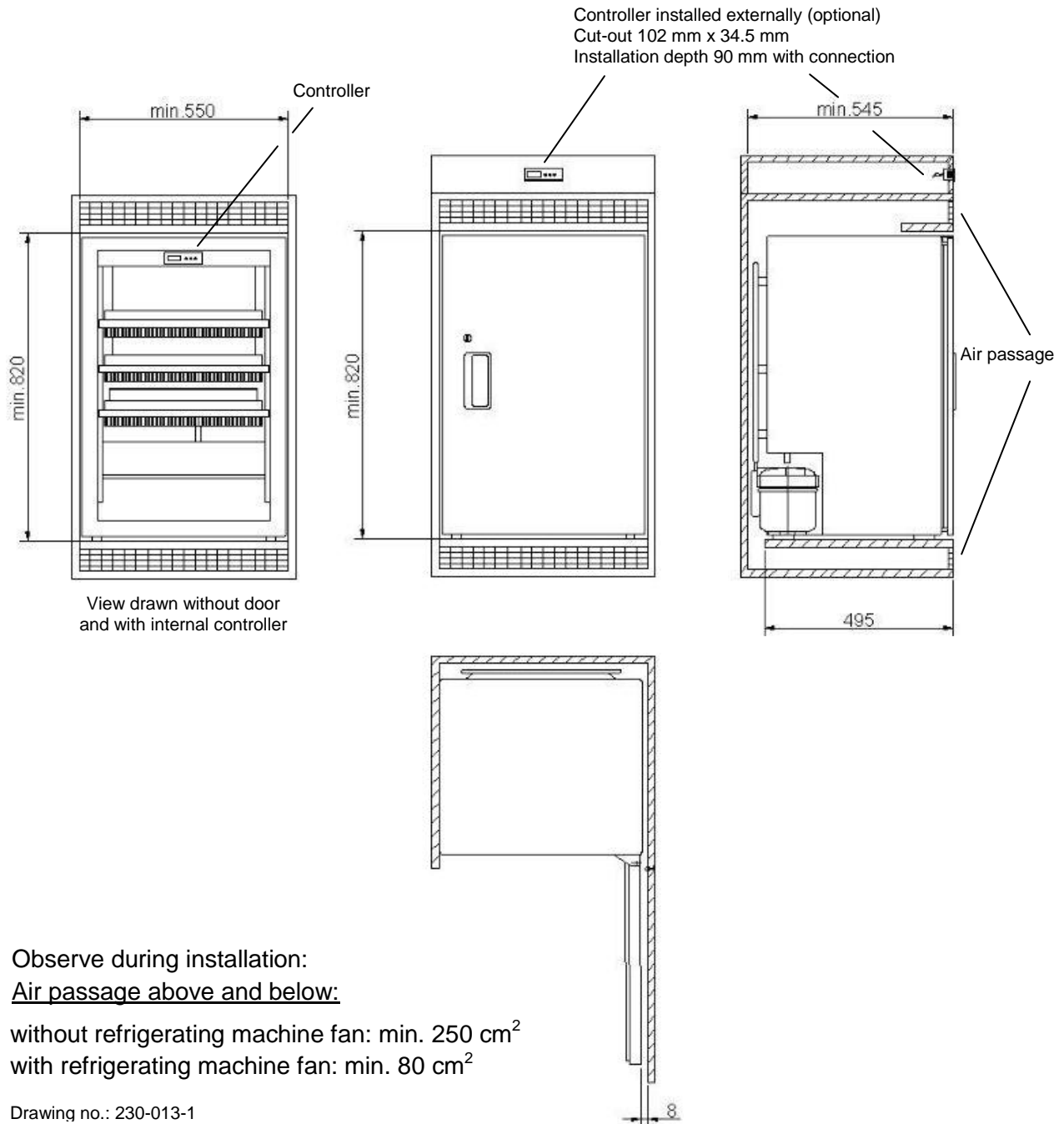
Installation dimensions



Drawing no.: 220-032-2

MED-125

Installation dimensions



Innovation and quality – since 1865

Since 1865, we have been synonymous with high-quality products fulfilling the most stringent standards and providing a high level of reliability. Our products are used all over the world: from the tropics right up to the Arctic. The experience we gain is fed continuously into our product innovations. Our policy of manufacturing our own housings enables us to coordinate the components of our refrigerators and freezers optimally with one another. This has enabled us to become a world leader in terms of temperature stability.

Our product range

- Pharmaceutical refrigerators
- Pharmaceutical freezers
- Blood bank refrigerators
- Blood plasma freezers
- Laboratory refrigerators
- Laboratory freezers
- Temperature documentation



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Zuverlässige Kühlung im Labor- und Gesundheitswesen

