Refrigerators and freezers
Research and laboratory
2018

LIEBHERR

Quality, Design and Innovation

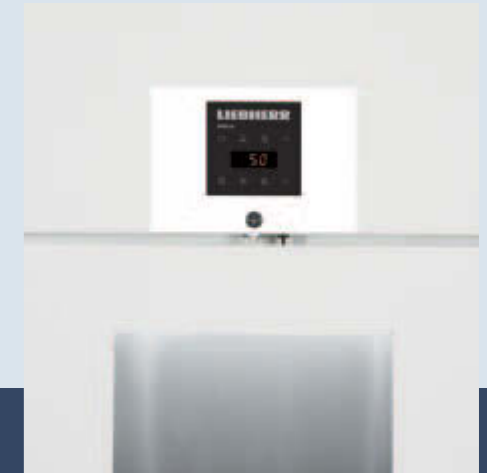# Liebherr laboratory refrigerators and freezers

Refrigerators and freezers for use in the laboratory and in research have to meet very stringent requirements, especially with regard to safety and temperature consistency. Liebherr appliances are therefore equipped with many functions and features to ensure optimum storage of sensitive samples, critical chemicals and research materials. The precise electronic controller enables accurate temperature setting and creates optimum storage conditions in conjunction with highly effective insulation and the dynamic cooling system. Integrated visual and audible alarm systems warn the user of undesired temperature deviations. Liebherr refrigerators and freezers provide the safety that is essential in the laboratory and research sector – 24 hours a day, 365 days a year.

Contents

Good reasons
to choose Liebherr

Highest performance

Liebherr research and laboratory freezers provide constant refrigeration performance even in extreme climate conditions. The use of ultra-modern components, efficient and environmentally-friendly refrigerants as well as precise controls ensures that samples, chemicals and research materials are stored optimally. Optional documentation software continuously logs the temperature profile – and if required, warning systems alert the user when defined temperature limits are exceeded.

Efficiency

Highly efficient with low energy consumption: the precise electronic controller, the dynamic refrigeration system and highly effective insulation guarantee low operating costs and are eco-friendly as well. The high quality of the appliances guarantees long life and reliable operation and provides for economic and ecological sustainability in laboratory and research applications.

Reliability

All laboratory appliances are designed according to the ISO 60068-3 standard with regard to maximum temperature stability. They are specially constructed for intensive professional use and feature a very sturdy design – with highest-quality materials and perfect workmanship right down to the smallest detail. The exemplary quality of the appliances is ensured by elaborate tests. All electronic and refrigeration components fulfill Liebherr's stringent specifications to form a well-balanced and therefore reliable system – ideal for research and laboratory.

Easy cleaning

Hygiene plays a special role in research and in the laboratory. That is why Liebherr appliances are equipped with moulded inner liners with large radii that are easy to clean. Flush seals prevent condensation and the accumulation of dirt and dust. Sturdy castors also allow easy cleaning of the floor space underneath the appliances.

Safety

To meet the most stringent requirements regarding reliability and accurate temperature consistency in laboratory applications, Liebherr appliances are equipped with many useful features: a visual and audible door alarm alerts the user to undesired temperature deviations. The appliances can be connected via the volt-free contact to an external remote warning system – and up to 20 appliances can be networked with a monitoring and alarm system via the serial interface RS 485. In case of a power failure, the electronic controller (in LKPv and LGPv) is powered by a battery for 72 hours to prevent data loss. The calibration option allows precise temperature control adapted to specific applications.

Easy servicing

Durability and reliability are given top priority in the material selection and development of Liebherr laboratory appliances. The exemplary quality and easy usability of the appliances are ensured by elaborate tests. The heavy-duty models with top-mounted units have all refrigeration components on the top of the cabinet. This allows easy service access and full use of the refrigerated compartment. The door remains open at 90° and is self-closing at less than 60° for convenient use. And the sturdy inner liners are easy to clean and allow variable adjustment of the grid shelves.

The advantages at a glance

The **refrigeration components** are securely integrated in the ceiling area, allowing ready access.

The integrated data logger includes a **min/max temperature memory function**.

These appliances have an access port (7.0 mm in diameter) in the ceiling area to enable connection of an **independent temperature sensor**.

In case of power failure, the electronic controller is immediately powered by an **integrated 12 V battery**. As a result, the **integrated memory continues to log** the internal temperatures without interruption for another 72 hours.

The **smooth interior** made of 304-grade stainless steel is easy to clean and enables **optimum hygiene**.

To increase the **net capacity** of the inner liner, functional parts like fans and evaporators are located **outside** the refrigerator compartment to save space.

The **practical door** remains open at 90° and is **self-closing** at less than 60° for convenient use.

The state-of-the-art **controller** has an integrated real time clock and can be **set to 1/10°C accuracy**.

After a refrigerator or freezer door has been opened, a **vacuum** is built up by **air exchange** – with the effect that the door is hard to reopen immediately afterwards. The **integrated pressure relief valve** ensures that the vacuum is quickly equalised so that the door can easily be reopened.

The laboratory appliances are equipped with a volt-free contact for **alarm forwarding** to an external warning system.

Maximum temperature stability in the interior is ensured by the **dynamic cooling system** with double ventilation, in conjunction with optimal routing of the air flow.

Visual and audible door **alarms** alert the user if the **door is open** for longer than 1 minute.

The **hot-gas defrost system with demand and time control** permits very short defrost cycles. To additionally improve temperature stability during defrost, the internal temperature is lowered slightly, shortly before the defrost starts.

The calibration function enhances validation and enables temperature control adapted to the specific application.

The LKPv and LGPv ranges **come with castors as standard** to allow versatile use depending on the available space and convenient cleaning also underneath the appliances.

LKPv 6520

Quality right down to the smallest detail

The MediLine range appliances are equipped with many features to guarantee the safety of stored products and temperature stability in the interior. High-quality materials and precise workmanship, extremely efficient refrigeration components as well as documentation and alarm functions ensure optimum storage of sensitive samples, chemicals and research materials.

Integrated digital controller.
The intuitive controller with integrated real-time clock allows the temperature to be set to 1/10°C accuracy. The large display allows improved temperature visibility at a glance. The keyboard is dirt resistant and easy to clean – to meet the most stringent hygiene requirements in the laboratory.
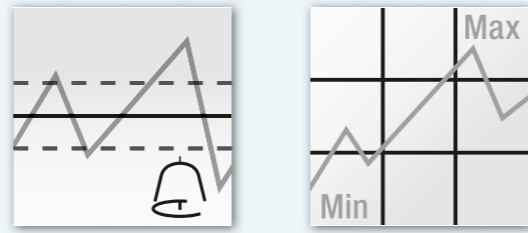
Integrated alarm systems.
A visual and audible door alarm alerts the user to temperature deviations. An alarm is also raised if the door is open for longer than one minute or in the event of power failure.

Integrated data memory.
The min/max temperature memory function stores the values for up to 41 days. In addition the alarm memory function records the last 3 alarm conditions with alarm type, date and time, duration and maximum temperature.

Accurate 1-point calibration.
The digital controller includes a calibration function for extremely accurate temperature control and display. This permits compensation between the set temperature and the actual internal temperature. Positive or negative changes to the correction value can be made in steps of 0.1 K.

Mains-independent power supply of the electronic controller.
In case of power failure, the electronic controller is powered by a battery. The memory continues to log the internal temperature for another 72 hours.
If external alarm and monitoring systems have been connected, then data transfer to these is also maintained.

External temperature sensor.
The laboratory appliances have an access port (diameter 7.0 mm) in the appliance ceiling which allows a temperature sensor to be positioned in the interior.

External temperature and alarm documentation.
The laboratory appliances are equipped with a volt-free contact for alarm forwarding to an external remote warning system. In addition the appliances have an RS 485 interface which enables as many as 20 appliances to be networked with a central monitoring and alarm system.
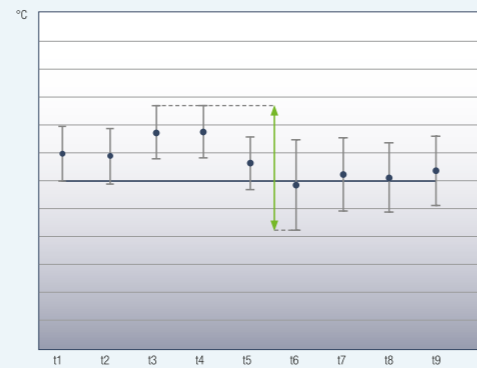
Maximum temperature consistency.
Maximum temperature stability in the interior is ensured by the dynamic cooling system with double ventilation. Very short defrost cycles allow the internal temperature to be kept almost constant during the defrost phases. All laboratory appliances are designed according to the ISO 60068-3 standard with regard to maximum temperature stability and consistency.

Advantage of hot gas defrost
It is quick, with minimal temperature rise.

30 min
Electric defrost

10 min
Hot gas defrost

Energy-efficient hot-gas defrost system.
Defrost less often and faster: the controller calculates the optimum defrost cycles based on the compressor run-time. Then the refrigerators defrost in just 8 minutes and the freezers in just 12 minutes. The internal temperature is slightly lowered shortly before so it remains almost constant during the defrost cycle.

Versatile interior.
Sturdy and versatile: the U-shaped trayslides are height-adjustable – so refrigerated or frozen products of any kind can be stored optimally on the plastic-coated grid shelves. Hygienic benefit: the interior made of high-quality 304-grade stainless steel is easy to clean thanks to the large corner radii.

Heavy-duty refrigerators

Heavy-duty freezers

Heavy-duty refrigerators and freezers	LKPv 1423 MediLine (LED)	LKPv 8420 MediLine	LKPv 6523 MediLine (LED)	LKPv 6520 MediLine	LGPv 1420 MediLine	LGPv 8420 MediLine	LGPv 6520 MediLine
Gross capacity	1361 litre	856 litre	597 litre	597 litre	1361 litre	856 litre	597 litre
Exterior dimensions in mm (w/d/h)	1430/830/2150	790/980/2150	700/830/2150	700/830/2150	1430/830/2150	790/980/2150	700/830/2150
Interior dimensions in mm (w/d/h)	1236/650/1500	620/850/1550	533/650/1500	533/650/1550	1236/650/1550	620/850/1550	533/650/1550
Energy consumption in 365 days [1]	820 kWh	603 kWh	571 kWh	497 kWh	2654 kWh	1739 kWh	1367 kWh
Ambient temperature range	+10°C to +40°C	+10°C to +40°C	+10°C to +40°C	+10°C to +40°C	+10°C to +35°C	+10°C to +35°C	+10°C to +35°C
Refrigerant	R 290	R 290	R 290	R 290	R 290	R 290	R 290
Sound power level	58 dB(A)	58 dB(A)	58 dB(A)	58 dB(A)	60 dB(A)	60 dB(A)	60 dB(A)
Voltage/Connection rating	220–240V~/3.0 A	220–240V~/2.0 A	220–240V~/2.0 A	220–240V~/2.0 A	220–240V~/4.5 A	220–240V~/4.0 A	220–240V~/4.0 A
Cooling system	forced-air	forced-air	forced-air	forced-air	forced-air	forced-air	forced-air
Defrost	automatic	automatic	automatic	automatic	automatic	automatic	automatic
Set temperature range	0°C to +16°C	−2°C to +16°C	0°C to +16°C	−2°C to +16°C	−9°C to −26°C	−9°C to −35°C [2]	−9°C to −35°C [2]
Gradient*/max. fluctuation**	3.8°C/3.9°C	2.1°C/1.8°C	2.4°C/1.6°C	1.8°C/1.0°C	4.3°C/6.7°C	4.5°C/5.7°C	2.9°C/3.6°C
External cabinet finish	steel/white	steel/white	steel/white	steel/white	steel/white	steel/white	steel/white
Door/lid material	glass door	steel	glass door	steel	steel	steel	steel
Internal liner material	304-grade stainless steel	304-grade stainless steel	304-grade stainless steel	304-grade stainless steel	304-grade stainless steel	304-grade stainless steel	304-grade stainless steel
Type of control	electronic controller	electronic controller	electronic controller	electronic controller	electronic controller	electronic controller	electronic controller
Temperature display	external digital	external digital	external digital	external digital	external digital	external digital	external digital
Power failure alarm	immediately upon power failure for 72hrs	immediately upon power failure for 72hrs	immediately upon power failure for 72hrs	immediately upon power failure for 72hrs	immediately upon power failure for 72hrs	immediately upon power failure for 72hrs	immediately upon power failure for 72hrs
Fault: warning signal	visual and audible	visual and audible	visual and audible	visual and audible	visual and audible	visual and audible	visual and audible
Interface/Volt-free alarm contact	RS 485/yes	RS 485/yes	RS 485/yes	RS 485/yes	RS 485/yes	RS 485/yes	RS 485/yes
Interior light	LED lighting, with separate switch		LED lighting, with separate switch				
Adjustable shelves	8	4	4	4	8	4	4
Usable shelf area in mm (w/d)	1236/640	620/800	533/650	533/650	1236/640	620/800	533/650
Shelf material	wire shelves plastic-coated	wire shelves plastic-coated	wire shelves plastic-coated	wire shelves plastic-coated	wire shelves plastic-coated	wire shelves plastic-coated	wire shelves plastic-coated
Shelf loading	60 kg	60 kg	60 kg	60 kg	60 kg	60 kg	60 kg
Castors	castors with brake at the front, castors at the rear	castors with brake at the front, fixed castors at the rear	castors with brake at the front, fixed castors at the rear	castors with brake at the front, fixed castors at the rear	castors with brake at the front, castors at the rear	castors with brake at the front, fixed castors at the rear	castors with brake at the front, fixed castors at the rear
Handle	full-length integrated handle	full-length integrated handle	full-length integrated handle	full-length integrated handle	full-length integrated handle	full-length integrated handle	full-length integrated handle
Lock	fitted	fitted	fitted	fitted	fitted	fitted	fitted
Self-closing door	yes	yes	yes	yes	yes	yes	yes
Door hinges	left hand/right hand	right, reversible on site	right, reversible on site	right, reversible on site	left hand/right hand	right, reversible on site	right, reversible on site
Gross/net weight	271/226 kg	183/152 kg	167/141 kg	158/132 kg	262/219 kg	189/157 kg	165/138 kg
Accessories							
Shelf, plastic-coated	7112393	7113643	7112393	7112393	7112393	7113643	7112393
U-shaped trayslide, right	9001761	9005089	9001761	9001761	9001761	9005089	9001761
U-shaped trayslide, left	9001757	9005077	9001757	9001757	9001757	9005077	9001757
Foot pedal opener	9590639	9590659	9590659	9590659	9590639	9590659	9590659
RS 485/RS 232 adapter, data log software	9590387	9590387	9590387	9590387	9590387	9590387	9590387
NTC product temperature sensor	9590407	9590407	9590407	9590407	9590407	9590407	9590407
Also available as	**LKPv 1420** with solid doors						

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[1] Measured at +25°C ambient temperature and +5°C set temperature for fridges and -20°C for freezers
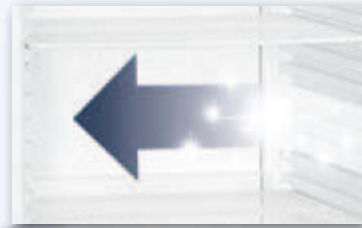[2] The temperature range is valid at a maximum ambient temperature of +30°C

* Gradient as defined in EN 60068-3: the difference between the warmest and coldest average measurements, increased by their expanded uncertainty, throughout the duration.
** Max. fluctuation as per EN 60068-3: greatest fluctuation value determined throughout the duration of measurements.

The advantages at a glance

The **integrated lock** is exceedingly sturdy and protects the stored products against unauthorised access.

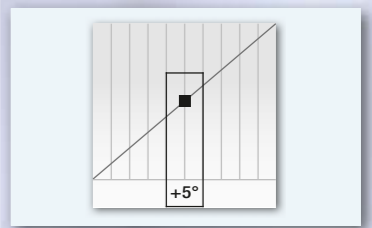**Volt-free contact** for forwarding alarms to an **external remote warning system**.

The **precise electronic controller** with digital temperature display allows accurate temperature setting to 1/10°C. An **integrated data memory** logs the last three temperature alarms and power failures, together with the time, date and duration of the alarm. The respective data can be recalled using the AlarmLog function and read on the display panel.

The **commercial-grade moulded polystyrol inner liner** is exceptionally easy to clean and enables **optimum hygiene.**

Laboratory refrigerators LKv 3913 and LKUv 1613 with a **glass door** feature an **efficient LED interior light** with a separate switch.

The sturdy, **plastic-coated grid shelves** have a **loading capacity of up to 45 kg**, are easily adjustable in height and can be removed at a door opening angle of 90 °.

1-point calibration for accurate temperature control. This permits compensation between the set temperature and the actual internal temperature.

Access port for integration of the optionally available NTC temperature sensor or independent temperature sensor PT 100 or similar measuring instruments.

Self-closing doors prevent cold loss and contribute to the **temperature stability** of the appliances. The integrated lock is very sturdy and protects the samples and products against unauthorised access.

The **precise electronic controller** has an **integrated data memory.** It logs e.g. the maximum and minimum internal temperatures.

The **dynamic cooling system** in conjunction with the **precise electronic controller** ensures maximum temperature stability and high temperature consistency in the interior.

Reversible door hinges in the LKv, LKUv, LGv and LCv models enable individual adaption to space conditions. The **door seals** can also be easily **replaced** as required.

LKv 3913

Quality right down to the smallest detail

Liebherr MediLine laboratory refrigerators the ideal solution for a small footprint or for under-worktop integration. The range comprises two freestanding and under-worktop refrigerators with a glass door or a solid door. The precise electronic controller enables temperatures to be set accurately. The dynamic cooling system ensures high temperature consistency. Integrated alarm systems guarantee safe storage.
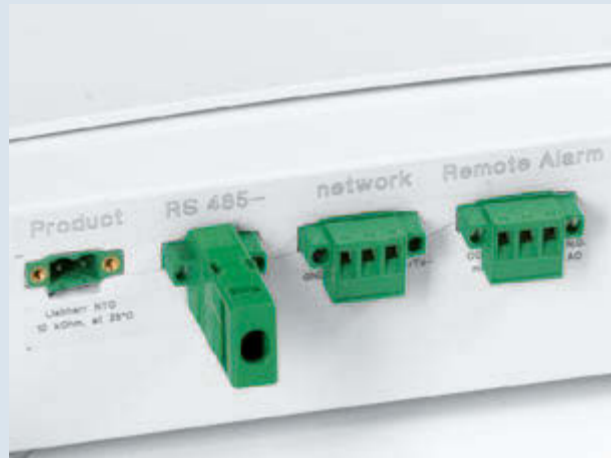
External temperature and alarm documentation.
The laboratory appliances are equipped with a volt-free contact for alarm forwarding to an external remote warning system, as well as with a serial interface RS 485 which enables central documentation of temperature profiles and alarm events. LTM documentation software is optionally available.
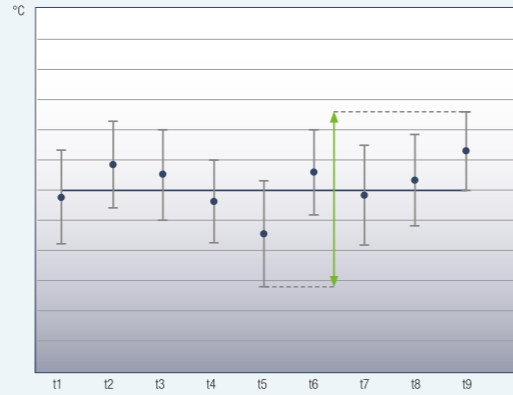
Maximum temperature consistency.
The dynamic cooling system in conjunction with the precise electronic controller ensures maximum temperature stability. All laboratory appliances are designed according to the ISO 60068-3 standard with regard to optimum temperature consistency.
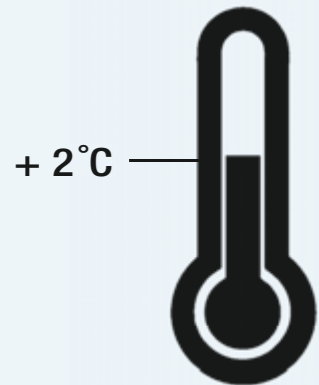
Safety thermostat.
The appliances with electronic controllers are equipped with an additional safety thermostat to prevent temperatures dropping below +2°C and to protect sensitive products in the event of a fault.

External temperature sensor.
The laboratory appliances have an access port (diameter 10 mm) on the rear which allows the temperature sensor to be positioned in the interior.

Laboratory refrigerators with electronic controls	LKv 5710 MediLine	LKv 3913 MediLine	LKv 3910 MediLine
Total gross / net capacity	583 / 437 litre	360 / 344 litre	360 / 344 litre
Exterior dimensions in mm (w / d / h)	747 / 750 / 1844	597 / 615 / 1840	597 / 615 / 1840
Interior dimensions in mm (w / d / h)	634 / 538 / 1500	440 / 435 / 1635	440 / 435 / 1635
Energy consumption in 365 days [1]	438 kWh	480 kWh	309 kWh
Ambient temperature range	+10°C to +35°C	+10°C to +35°C	+10°C to +35°C
Refrigerant	R 600a	R 600a	R 600a
Sound power level	52 dB(A)	48 dB(A)	48 dB(A)
Voltage / Connection rating	220 – 240V~ / 1.0 A	220 – 240V~ / 1.5 A	220 – 240V~ / 1.5 A
Cooling system	forced-air	forced-air	forced-air
Defrost	automatic	automatic	automatic
Set temperature range	+3°C to +16°C	+3°C to +16°C	+3°C to +16°C
Gradient * / max. fluctuation **	3.8°C / 3.1°C	5.6°C / 4.7°C	4.1°C / 3.6°C
External cabinet finish	steel / white	steel / white	steel / white
Door / lid material	steel	glass door	steel
Internal liner material	commercial grade moulded polystyrol	commercial grade moulded polystyrol	commercial grade moulded polystyrol
Type of control	electronic controller	electronic controller	electronic controller
Temperature display	external digital	external digital	external digital
Power failure alarm	when mains power return	when mains power return	when mains power return
Fault: warning signal	visual and audible	visual and audible	visual and audible
Interface / Volt-free alarm contact	RS 485 / yes	RS 485 / yes	RS 485 / yes
Interior light		LED lighting, with separate switch	
Adjustable shelves	5	5	5
Usable shelf area in mm (w / d)	634 / 518	440 / 420	440 / 420
Shelf material	wire shelves plastic-coated	wire shelves plastic-coated	wire shelves plastic-coated
Shelf loading	60 kg	45 kg	45 kg
Handle	ergonomic slimline handle	ergonomic slimline handle	ergonomic slimline handle
Lock	fitted	fitted	fitted
Self-closing door	yes	yes	yes
Door hinges	right, reversible on site	right, reversible on site	right, reversible on site
Gross / net weight	98 / 91 kg	88 / 82 kg	70 / 65 kg
Accessories			
Shelf, plastic-coated	7113485	7112313	7112313
Evaporator cover, white		9590241	9590241
Adjustable legs		9590231	9590231
RS 485 / RS 232 adapter, data log software	9590387	9590387	9590387
Additional lock barrels (up to 10)		on request	on request
Foot pedal opener	9094579		
Roller bars		9590380	9590380

[1] Measured at +25°C ambient temperature and +5°C set temperature for fridges and -20°C for freezers

* Gradient as defined in EN 60068-3: the difference between the warmest and coldest average measurements, increased by their expanded uncertainty, throughout the duration.

** Max. fluctuation as per EN 60068-3: greatest fluctuation value determined throughout the duration of measurements.

Laboratory refrigerators and freezers with electronic controls	LKUv 1613 MediLine	LKUv 1610 MediLine	LGv 5010 MediLine
Total gross / net capacity	141 / 130 litre	141 / 130 litre	478 / 337 litre
Exterior dimensions in mm (w/d/h)	597 / 615 / 825	597 / 615 / 825	747 / 750 / 1844
Interior dimensions in mm (w/d/h)	440 / 435 / 670	440 / 435 / 670	602 / 520 / 1224
Energy consumption in 365 days [1]	369 kWh	273 kWh	1245 kWh
Ambient temperature range	+10°C to +35°C	+10°C to +35°C	+16°C to +35°C
Refrigerant	R 600a	R 600a	R 290
Sound power level	47 dB(A)	47 dB(A)	55 dB(A)
Voltage / Connection rating	220–240V~ / 1.0 A	220–240V~ / 1.0 A	220–240V~ / 3.0 A
Cooling system	forced-air	forced-air	forced-air
Defrost	automatic	automatic	automatic
Set temperature range	+3°C to +16°C	+3°C to +16°C	−9°C to −35°C
Gradient */ max. fluctuation **	5.1°C/4.9°C	4.3°C/4.6°C	5.8°C/4.9°C
External cabinet finish	steel / white	steel / white	steel / white
Door / lid material	glass door	steel	steel
Internal liner material	commercial grade moulded polystyrol	commercial grade moulded polystyrol	commercial grade moulded polystyrol
Type of control	electronic controller	electronic controller	electronic controller
Temperature display	external digital	external digital	external digital
Power failure alarm	when mains power return	when mains power return	when mains power return
Fault: warning signal	visual and audible	visual and audible	visual and audible
Interface / Volt-free alarm contact	RS 485 / yes	RS 485 / yes	RS 485 / yes
Interior light	LED lighting, with separate switch		
Adjustable shelves	3	3	
Usable shelf area in mm (w/d)	440 / 420	440 / 420	602 / 485
Shelf material	wire shelves plastic-coated	wire shelves plastic-coated	wire shelves plastic-coated
Shelf loading	45 kg	45 kg	60 kg
Handle	ergonomic slimline handle	ergonomic slimline handle	ergonomic slimline handle
Lock	fitted	fitted	fitted
Self-closing door	yes	yes	yes
Door hinges	right, reversible on site	right, reversible on site	right, reversible on site
Gross / net weight	46 / 43 kg	39 / 36 kg	120 / 113 kg
Accessories			
Shelf, plastic-coated	7112313	7112313	7112059
Stacking kit, white	9876687	9876687	
Roller bars	9590521	9590521	
Evaporator cover, white	9590523	9590523	
NTC product temperature sensor			9591493
RS 485 / RS 232 adapter, data log software	9590387	9590387	9590387
Foot pedal opener			9094579
Additional lock barrels (up to 10)	on request	on request	

1 Measured at +25°C ambient temperature and +5°C set temperature for fridges and -20°C for freezers

Laboratory fridge-freezer combination with electronic controls		LCv 4010 MediLine
Total gross / net capacity	fridge compartment	254 / 240 litre
Total gross / net capacity	freezer compartment	107 / 105 litre
Exterior dimensions in mm (w/d/h)		597 / 615 / 2003
Interior dimensions in mm (w/d/h)	fridge compartment	440 / 441 / 1105
Interior dimensions in mm (w/d/h)	freezer compartment	431 / 435 / 597
Energy consumption in 365 days [1]		657 kWh
Ambient temperature range		+10°C to +35°C
Refrigerant		R 600a
Sound power level		52 dB(A)
Voltage / Connection rating		220–240V~ / 1.5 A
Cooling system	fridge / freezer comp.	forced-air / static
Defrost	fridge / freezer comp.	automatic / manual
Set temperature range	fridge / freezer comp.	+3°C to +16°C / −9°C to −30°C
Gradient *	fridge / freezer comp.	5.2°C/7.9°C
Max. fluctuation **	fridge / freezer comp.	5.7°C/5.5°C
External cabinet finish		steel / white
Door / lid material		steel
Internal liner material		commercial grade moulded polystyrol
Type of control		electronic controller
Temperature display		external digital
Power failure alarm		when mains power return
Fault: warning signal		visual and audible
Interface / Volt-free alarm contact		RS 485 / yes
Adjustable shelves	fridge compartment	4
Usable shelf area in mm (w/d)	fridge compartment	440 / 409
Shelf material	fridge / freezer comp.	wire shelves plastic-coated / glass
Shelf loading	fridge / freezer comp.	45 kg / 24 kg
Drawers	freezer compartment	3
Handle		ergonomic slimline handle
Lock		fitted
Self-closing door		yes
Door hinges		right, reversible on site
Gross / net weight		90 / 84 kg
Accessories		
Shelf, plastic-coated, for	fridge compartment	7112313
Evaporator cover, white, for	fridge compartment	9590391
NTC product temperature sensor		9590407
RS 485 / RS 232 adapter, data log software		9590387
Roller bars		9590380
Additional lock barrels (up to 10)		on request

* Gradient as defined in EN 60068-3: the difference between the warmest and coldest average measurements, increased by their expanded uncertainty, throughout the duration.
** Max. fluctuation as per EN 60068-3: greatest fluctuation value determined throughout the duration of measurements.

The advantages at a glance

The laboratory appliances are equipped with a volt-free contact for **alarm forwarding** to an external remote warning system.

Access port for integration of an **independent temperature sensor** (e.g. an optionally available NTC temperature sensor or similar measuring instruments) in laboratory appliances.

The **commercial-grade moulded polystyrol inner liner** is exceptionally easy to clean and enables **optimum hygiene.**

The **glass shelves** of the laboratory refrigerators with spark-free interior are **height adjustable** and can easily be removed at a door opening angle of 90 °.

The **drawers** in the LCexv laboratory fridge-freezer can easily be removed by the handles recessed in the sides. The drawers have a transparent front providing a **clear view of the products stored inside.**

The **integrated lock** is exceedingly sturdy and protects the stored products against unauthorised access.

The **electronic controller** with digital temperature display allows **accurate temperature setting to 1/10°C.** The large display allows improved temperature visibility at a glance.

All laboratory refrigerators and freezers with **spark-free interior** are tested according to the 2014/34/EU (ATEX) Directive.

The **precise electronic controller** has an **integrated data memory.** It logs e.g. the maximum and minimum internal temperatures.

Laboratory appliances with a **electronic controller** provide **1-point calibration** for accurate temperature control. This permits compensation between the set temperature and the actual internal temperature.

The **dynamic cooling system** in conjunction with the **precise electronic controller** ensures maximum temperature stability and high temperature consistency in the interior.

The **self-closing door** prevents unnecessary cold loss and contributes to the temperature stability of the appliances. The **integrated lock** is very sturdy and protects the samples and products against unauthorised access.

Reversible door hinges in the LCexv, LKexv, LKUexv, LGex and LGUex models enable individual adaption to space conditions. The **door seals** can also be easily **replaced** as required.

LCexv 4010

Quality right down to the smallest detail

Liebherr provides refrigerators and freezers with spark-free interior especially for storing explosive and highly flammable substances in labs and in the chemical industry. The inner liners meet the safety requirements of the EU Directive 2014/34/EU (ATEX) and have

been tested according to the EN 1127-1, IEC 60079-0 and IEC 60079-15 standards by electrosuisse – SEV (Swiss Association for Electrical Engineering, Power and Information Technologies), an approved ATEX conformity evaluation organisation.

Certified according to ATEX.
All appliances with spark-free interior are tested according to the 2014/34/EU (ATEX) Directive. Rated as II 3G Ex nA II T6, these appliances are suitable for storing explosive and highly flammable substances in sealed containers.

The electronic controller.
The precise electronic controller with digital temperature display enables temperatures to be set accurately to 1/10°C. Symbols indicate the operating status of the appliance. The electronic controller is flush-mounted and equipped with a membrane keyboard for perfect hygiene. The large display allows improved temperature visibility at a glance.

Accurate 1-point calibration.
The laboratory appliances with electronic controls have a 1-point calibration function for accurate temperature control. This permits compensation between the set temperature and the actual internal temperature. Positive or negative changes to the correction value can be made in steps of 0.1 K.

External temperature and alarm documentation.
The laboratory appliances are equipped with a volt-free contact for alarm forwarding to an external remote warning system, as well as with a serial interface RS 485 which enables central documentation of temperature profiles and alarm events. LTM monitoring software is optionally available.
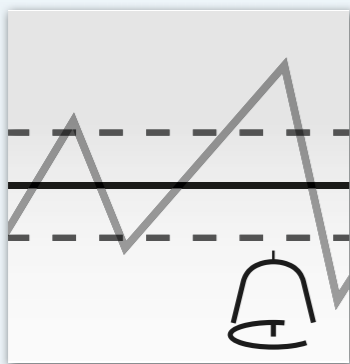
Integrated alarm systems.
Visual and audible alarm systems alert the user to undesired temperature deviations or when the door is open. All alarm parameters can be individually set. For example, the door-open alarm delay can be adjusted between 1 and 5 minutes. Furthermore, the laboratory appliances with electronic controls have a visual power failure alarm and a sensor defect alarm.

Integrated data memory.
The electronic controller is equipped with an integrated data memory which logs the maximum and minimum internal temperatures as well as the last three temperature alarms and power failures, together with the time, date and duration. These data can be read out on the display.
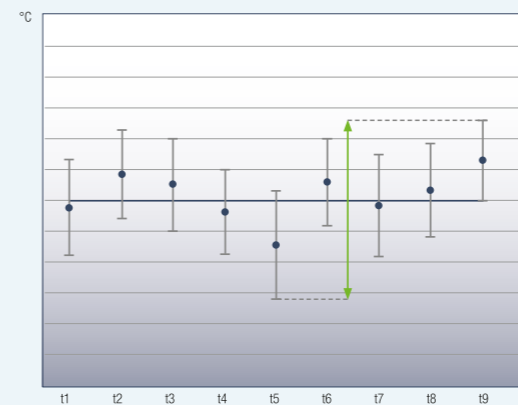
Maximum temperature consistency.
Maximum temperature stability is ensured by the cooling systems of the laboratory refrigerators and freezers in conjunction with the electronic controller. The refrigerators are equipped with a safety thermostat to prevent temperatures below +2°C in case of a fault. All laboratory appliances with electronic controls are designed according to the ISO 60068-3 standard with regard to maximum temperature stability and consistency.

Sturdy glass shelves.
The sturdy glass shelves are easily adjustable in height and can conveniently be removed at a door opening angle of 90°. They ensure secure positioning of the refrigerated or frozen products and have a loading capacity of up to 40 kg in the refrigerator compartment and up to 24 kg in the freezer compartment.

External temperature sensor.
The laboratory appliances with electronic controls have an access port (diameter 10 mm) on the rear which allows the temperature sensor to be positioned in the interior.

Laboratory fridge-freezer combination with electronic controls and spark-free interior

Specification		LCexv 4010 MediLine
Total gross/net capacity	fridge compartment	254/240 litre
Total gross/net capacity	freezer compartment	107/105 litre
Exterior dimensions in mm (w/d/h)		597/615/2003
Interior dimensions in mm (w/d/h)	fridge compartment	440/441/1105
Interior dimensions in mm (w/d/h)	freezer compartment	431/435/597
Energy consumption in 365 days [1]		657 kWh
Ambient temperature range		+10°C to +35°C
Refrigerant		R 600a
Sound power level		52 dB(A)
Voltage/Connection rating		220–240V~/1.5 A
Cooling system	fridge/freezer comp.	forced-air/static
Defrost	fridge/freezer comp.	automatic/manual
Set temperature range	fridge/freezer comp.	+3°C to +16°C / −9°C to −30°C
Gradient*	fridge/freezer comp.	4.0°C/7.9°C
Max. fluctuation**	fridge/freezer comp.	3.9°C/5.5°C
External cabinet finish		steel/white
Door/lid material		steel
Internal liner material		commercial grade moulded polystyrol
Type of control		electronic controller
Temperature display		external digital
Power failure alarm		when mains power return
Fault: warning signal		visual and audible
Interface/Volt-free alarm contact		RS 485/yes
Adjustable shelves	fridge compartment	4
Usable shelf area in mm (w/d)	fridge compartment	440/409
Shelf material	fridge/freezer comp.	glass/glass
Shelf loading	fridge/freezer comp.	45 kg/24 kg
Drawers	freezer compartment	3
Handle		ergonomic slimline handle
Lock		fitted
Self-closing door/Door hinges		yes/right, reversible on site
Gross/net weight		93/87 kg
Accessories		
Glass shelf		9293629
NTC product temperature sensor		9590145
RS 485/RS 232 adapter, data log software		9590387
Roller bars		9590380
Additional lock barrels (up to 10)		on request

Laboratory refrigerators and freezers with electronic controls and spark-free interior

Specification	LKexv 3910 MediLine	LKUexv 1610 MediLine	LGex 3410 MediLine	LGUex 1500 MediLine
Total gross/net capacity	360/344 litre	141/130 litre	310/284 litre	139/129 litre
Exterior dimensions in mm (w/d/h)	597/615/1840	597/615/825	597/615/1840	597/615/825
Interior dimensions in mm (w/d/h)	440/435/1635	440/435/670	420/400/1587	454/450/663
Energy consumption in 365 days [1]	316 kWh	315 kWh	478 kWh	338 kWh
Ambient temperature range	+10°C to +35°C	+10°C to +35°C	+10°C to +35°C	+10°C to +35°C
Refrigerant	R 600a	R 600a	R 600a	R 600a
Sound power level	48 dB(A)	47 dB(A)	45 dB(A)	45 dB(A)
Voltage/Connection rating	220–240V~/1.5 A	220–240V~/1.0 A	220–240V~/1.5 A	220–240V~/1.0 A
Cooling system/Defrost	forced-air/automatic	forced-air/automatic	static/manual	static/manual
Set temperature range	+3°C to +16°C	+3°C to +16°C	−9°C to −30°C	−9°C to −26°C
Gradient*/max. fluctuation**	5.5°C/5.1°C	3.9°C/4.8°C	6.6°C/4.2°C	6.6°C/3.3°C
External cabinet finish	steel/white	steel/white	steel/white	steel/white
Door/lid material	steel	steel	steel	steel
Internal liner material	commercial grade moulded polystyrol	commercial grade moulded polystyrol	commercial grade moulded polystyrol	commercial grade moulded polystyrol
Type of control	electronic controller	electronic controller	electronic controller	electronic controller
Temperature display	external digital	external digital	external digital	external digital
Power failure alarm	when mains power return	when mains power return	when mains power return	when mains power return
Fault: warning signal	visual and audible	visual and audible	visual and audible	visual and audible
Interface/Volt-free alarm contact	RS 485/yes	RS 485/yes	RS 485/yes	RS 485/yes
Adjustable shelves	5	3		
Usable shelf area in mm (w/d)	440/420	440/420	420/400	454/450
Shelf material	glass	glass	evaporator plates	evaporator plates
Shelf loading	40 kg	40 kg	24 kg	24 kg
Drawers/Number of baskets			8/–	3/1
Compartment height in mm			185	149
Handle	ergonomic slimline handle	ergonomic slimline handle	ergonomic slimline handle	ergonomic slimline handle
Lock	fitted	fitted	fitted	fitted
Self-closing door/Door hinges	yes/right, reversible on site	yes/right, reversible on site	yes/right, reversible on site	yes/right, reversible on site
Gross/net weight	74/68 kg	41/38 kg	91/86 kg	44/42 kg
Accessories				
Glass shelf	9293629	9293629		
Stacking kit, white		9876687		9876687
Roller bars	9590380	9590521	9590380	9590521
Evaporator cover, white	9590241	9590523		
Adjustable legs	9590231		9590231	
NTC product temperature sensor	9590145	9590145	9590145	9590145
RS 485/RS 232 adapter, data log software	9590387	9590387	9590387	9590387
Additional lock barrels (up to 10)	on request	on request	on request	on request

1 Measured at +25°C ambient temperature and +5°C set temperature for fridges and -20°C for freezers

* Gradient as defined in EN 60068-3: the difference between the warmest and coldest average measurements, increased by their expanded uncertainty, throughout the duration.
** Max. fluctuation as per EN 60068-3: greatest fluctuation value determined throughout the duration of measurements.

The advantages at a glance

Quality right down to the smallest detail

The LKexv models are **labelled** clearly and permanently on the **outer housing** in accordance with the ATEX Directive 2014/34/EU, including **information for cleaning**.

The **moulded polystyrol inner liner** with large corner radii is exceptionally easy to clean and enables **optimum hygiene**.

The **sturdy glass shelves** are easily adjustable in height and can conveniently be removed at a door opening angle of 90°. They ensure secure storage and have a **loading capacity of up to 40 kg.**

The **integrated lock** is exceedingly sturdy and protects the stored products against unauthorised access.

Sealed defrost water drain in the laboratory appliances with spark-free interior for compliance with the ATEX Directive 2014/34/EU.

Reversible door hinges in the LKexv models enable individual adaption to space conditions. The door seals can also be easily replaced as required.

Certified according to ATEX.
The LKexv models are labelled clearly and permanently on the outer housing in accordance with the ATEX Directive 2014/34/EU, including information for cleaning. Rated as II 3G Ex nA II T6, these appliances are suitable for storing explosive and highly flammable substances in sealed containers.

Hygienic interior for versatile use.
The commercial-grade moulded polystyrol inner liner is exceptionally easy to clean and enables optimum hygiene. The moulded trayslides prevent the glass shelves from tipping and allow them to be varied in height.

Glass shelves.
The glass shelves ensure secure storage even for small items and have a loading capacity of up to 40 kg.

Water tray.
The defrost water drain in the laboratory appliances with spark-free interior is sealed for compliance with the ATEX Directive 2014/34/EU. The defrost water obtained during the automatic defrost cycle is collected in a tray which has to be emptied manually at regular intervals.

LKexv 5400

Laboratory refrigerators with analogue controls and spark-free interior

Laboratory refrigerators with mechanical control and spark-free interior	LKexv 5400 MediLine	LKexv 3600 MediLine	LKexv 2600 MediLine	LKexv 1800 MediLine
Total gross / net capacity	554 / 520 litre	333 / 307 litre	240 / 221 litre	180 / 160 litre
Exterior dimensions in mm (w / d / h)	750 / 730 / 1640	600 / 610 / 1640	600 / 610 / 1250	600 / 600 / 860
Interior dimensions in mm (w / d / h)	600 / 560 / 1452	470 / 440 / 1452	470 / 440 / 1062	513 / 441 / 702
Energy consumption in 365 days [1]	359 kWh	346 kWh	287 kWh	328 kWh
Ambient temperature range	+10°C to +40°C	+10°C to +40°C	+10°C to +40°C	+10°C to +30°C
Refrigerant	R 600a	R 600a	R 600a	R 600a
Sound power level	48 dB(A)	48 dB(A)	48 dB(A)	47 dB(A)
Voltage / Connection rating	220–240V~ / 1.5 A	220–240V~ / 1.5 A	220–240V~ / 1.0 A	220–240V~ / 1.0 A
Cooling system	forced-air	forced-air	forced-air	forced-air
Defrost	automatic	automatic	automatic	automatic
Set temperature range	+1°C to +15°C	+1°C to +15°C	+1°C to +15°C	+1°C to +15°C
Gradient * / max. fluctuation **	6.9°C / 5.8°C	4.8°C / 3.0°C	6.4°C / 5.5°C	10.2°C / 7.4°C
External cabinet finish	steel / white	steel / white	steel / white	steel / white
Door / lid material	steel	steel	steel	steel
Internal liner material	commercial grade moulded polystyrol	commercial grade moulded polystyrol	commercial grade moulded polystyrol	commercial grade moulded polystyrol
Type of control	analogue control	analogue control	analogue control	analogue control
Temperature display	external digital	external digital	external digital	external digital
Adjustable shelves	5	5	4	3
Usable shelf area in mm (w / d)	600 / 550	470 / 425	470 / 425	513 / 412
Shelf material	glass	glass	glass	glass
Shelf loading	40 kg	40 kg	40 kg	40 kg
Handle	ergonomic slimline handle	ergonomic slimline handle	ergonomic slimline handle	ergonomic slimline handle
Lock	fitted	fitted	fitted	fitted
Door hinges	right, reversible on site	right, reversible on site	right, reversible on site	right, reversible on site
Gross / net weight	84 / 77 kg	64 / 59 kg	53 / 49 kg	41 / 38 kg
Accessories				
Glass shelf	9293613	9293615	9293615	9293631
Castor base	9086365	9086323	9086323	
Adjustable legs	9590231	9590231	9590231	
Additional lock barrels (up to 10)	on request	on request	on request	

[1] Measured at +25°C ambient temperature and +5°C set temperature

* Gradient as defined in EN 60068-3: the difference between the warmest and coldest average measurements, increased by their expanded uncertainty, throughout the duration.
** Max. fluctuation as per EN 60068-3: greatest fluctuation value determined throughout the duration of measurements.

The advantages at a glance

Visual and audible temperature alarms alert the user if **temperature deviation limits** are exceeded. The parameters for the temperature alarm can be individually set. The integrated data memory with min/max temperatures logs temperature fluctuations with date, time and duration of the alarm. In addition the electronic controller ensures high temperature consistency in the interior. All laboratory chest freezers are designed in accordance with ISO 60068-3.

Volt-free contact for forwarding alarms to an **external remote warning system.**

Precise electronic controller with digital temperature display for accurate temperature setting. Thanks to its position on the **chest rear**, the electronic controller can be connected to external systems.
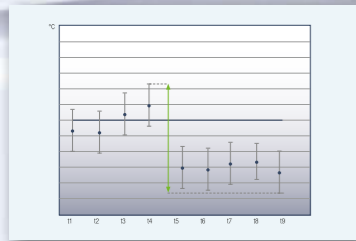
The electronic controller ensures **maximum temperature stability** and **high temperature consistency** in the interior.

Stop Frost

The **StopFrost system** fitted to the LGT models reduces frosting of the interior and the freezer contents – so the time-consuming process of defrosting is necessary far less often. The **vacuum** is also equalised quickly after the lid is opened and closed so that the chest can be re-opened effortlessly.

Sturdy, one-piece and easy-to-clean **lid.** The **strong** lid hinges are designed for at least 50,000 openings.

The **aluminium handle** on the LGT models is simple and tough for intensive commercial use. All appliances have **locks** as standard.
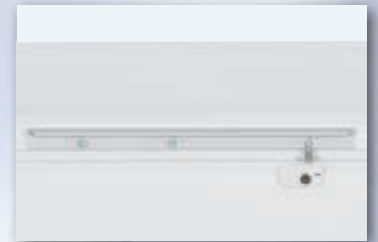
The lid has an integrated, **energy-efficient LED interior light** to **improve visibility** in the interior.

Access port (diameter 10 mm) for integration of the optionally available **NTC temperature sensor** or independent temperature sensor PT 100 or similar measuring instruments.
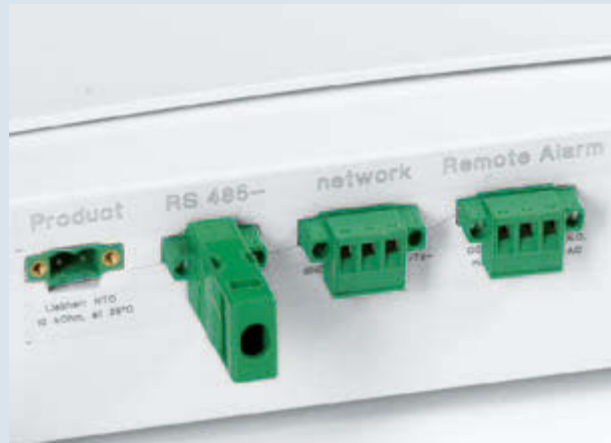
Laboratory chest freezers are equipped with **1-point calibration** for accurate temperature control.

LGT 2325

Quality right down to the smallest detail

The Liebherr laboratory chest freezers down to -45°C are available in three different sizes and are specially designed for the requirements in the research, laboratory, healthcare and industrial sector. The 1-point calibration ensures high temperature consistency. Integrated alarm systems and external temperature and alarm monitoring contribute to the safe storage of samples, chemicals and research materials.

External temperature and alarm documentation.
The laboratory chest freezers are equipped with a volt-free contact for alarm forwarding to an external remote warning system. In addition, they have an RS 485 serial interface for central documentation of the temperature profiles and alarm events.

The electronic controller.
The precise electronic controller with digital temperature display enables temperatures to be set accurately. Symbols indicate the operating status of the appliance. To ensure the level of hygiene required in the laboratory, the electronic controller is flush-mounted and equipped with a membrane keyboard.

Accurate 1-point calibration.
The laboratory chest freezers are equipped with 1-point calibration for accurate temperature control. This permits compensation between the set temperature and the actual internal temperature. Positive or negative changes to the correction value can be made in steps of 0.1 K.

StopFrost System.
The StopFrost system fitted to the LGT models offers several key advantages: frosting of the freezer compartment and its contents is reduced and the time-consuming process of defrosting is necessary far less often. The vacuum is also equalised after the chest lid is opened and closed so that the laboratory chest can be re-opened effortlessly.
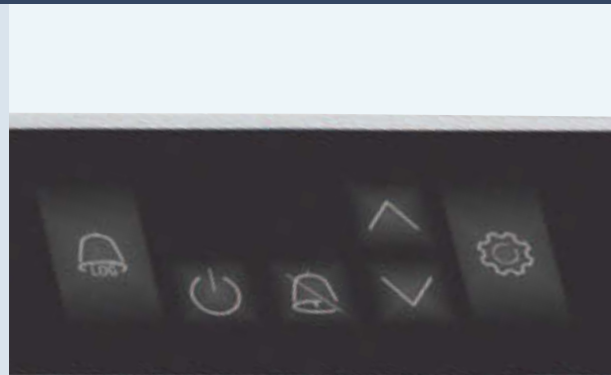
Integrated alarm systems.
Visual and audible alarm systems alert the user to undesired temperature deviations or when the door is open. All alarm parameters can be individually set. For example, the lid-open alarm delay can be adjusted between 1 and 5 minutes. Additional safety is provided by a visual power failure alarm and sensor defect alarm.

Integrated data memory.
The electronic controller is equipped with an integrated data memory which logs the maximum and minimum internal temperatures as well as the last three temperature alarms and power failures, together with the time, date and duration. These data can be read out on the display.

External temperature sensor.
The laboratory chest freezers have an access port (diameter 10 mm) on the rear which allows temperature sensor to be positioned in the interior.
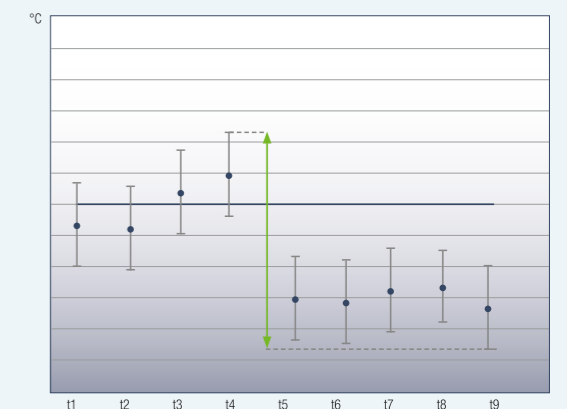
Maximum temperature consistency.
The dynamic cooling system in conjunction with the electronic controller ensures maximum temperature stability. All laboratory chest freezers are designed according to the ISO 60068-3 standard with regard to optimum temperature consistency.

Laboratory chest freezers down to -45°C	LGT 4725 MediLine	LGT 3725 MediLine	LGT 2325 MediLine
	LED	LED	LED
Total gross/net capacity	459/431 litre	365/342 litre	215/200 litre
Exterior dimensions in mm (w/d/h)	1648/808/919	1373/808/919	1132/760/919
Interior dimensions in mm (w/d/h)	1445/500/650	1170/500/650	889/410/630
Energy consumption in 365 days [1]	1589 kWh	1069 kWh	824 kWh
Ambient temperature range	+10°C to +32°C	+10°C to +30°C	+10°C to +30°C
Refrigerant	R 290	R 290	R 290
Sound power level	55 dB(A)	55 dB(A)	55 dB(A)
Voltage/Connection rating	220–240V~/3.5 A	220–240V~/3.0 A	220–240V~/2.0 A
Cooling system	static	static	static
Defrost	manual	manual	manual
Set temperature range	−10°C to −45°C	−10°C to −45°C	−10°C to −45°C
Gradient*/max. fluctuation**	3.5°C/1.8°C	4.3°C/2.2°C	4.7°C/1.9°C
External cabinet finish	steel/white	steel/white	steel/white
Door/lid material	steel	steel	steel
Internal liner material	white coated aluminium	white coated aluminium	white coated aluminium
Type of control	electronic controller	electronic controller	electronic controller
Temperature display	external digital	external digital	external digital
Power failure alarm	when mains power return	when mains power return	when mains power return
Interface/Volt-free alarm contact	RS 485/yes	RS 485/yes	RS 485/yes
Insulation	100 mm	100 mm	120 mm
Number of baskets	0	0	0
Number of baskets, max	16	13	10
Interior light	LED	LED	LED
Handle	profiled aluminium	profiled aluminium	profiled aluminium
Lock	fitted	fitted	fitted
Gross/net weight	94/81 kg	82/71 kg	68/58 kg
Accessories			
NTC product temperature sensor	9590407	9590407	9590407
RS 485/RS 232 adapter, data log software	9590387	9590387	9590387
Basket large 479×210×210 mm	7113627	7113627	
Basket small 385×202×195 mm			7112317

[1] Measured at +25°C ambient temperature and -45°C set temperature

* Gradient as defined in EN 60068-3: the difference between the warmest and coldest average measurements, increased by their expanded uncertainty, throughout the duration.
** Max. fluctuation as per EN 60068-3: greatest fluctuation value determined throughout the duration of measurements.

Accessories

Section: Heavy-duty laboratory refrigerators and freezers

U-shaped trayslides and plastic-coated shelves

Additional U-shaped trayslides and plastic-coated grid shelves can be retrofitted as required to provide extra storage options. The sturdy grid shelves have an extremely high loading capacity of up to 60 kg.

Interface converter with monitoring software

A special interface converter including the Liebherr LTM monitoring software is available for central documentation of the temperature profile data and alarm events of multiple appliances via the RS 485 serial interface. It is possible to network as many as 20 laboratory appliances and centrally document their parameters. Alarm forwarding or regular status reports to up to three email addresses can be configured as an additional feature. Alternatively, commercially available converters can be used to connect the appliances to a PC via WLAN or LAN. Software requirements: PC with Windows® operating system.

NTC product temperature sensor

An NTC product temperature sensor for logging product temperatures is available as a retrofit kit for the laboratory appliances with electronic controller. The logged product temperatures can either be read by the electronic controller or transferred to an external documentation system via the existing RS 485 interface.

Foot-pedal door opener

The optional foot-pedal opener is useful when you don't have a hand free.

Section: Laboratory refrigerators, freezers and fridge-freezer combinations with electronic controls

Interface converter with monitoring software

A special interface converter including LTM monitoring software is available for central documentation of the temperature profile data and alarm events of multiple appliances via the RS 485 serial interface. Capability is provided for interconnecting as many as 20 laboratory appliances and centrally documenting their parameters. Alarm forwarding or regular status reports to up to three email addresses can be configured as an additional feature. Alternatively commercially available converters can be used to connect the appliances to a PC via WLAN or LAN. Software requirements: PC with Windows® operating system.

NTC product temperature sensor

An NTC product temperature sensor for logging product temperatures is available as a retrofit kit for the laboratory appliances with electronic controller. The logged product temperatures can either be read by the electronic controller or transferred to an external documentation system via the existing RS 485 interface.

Accessories

Section: Laboratory refrigerators, freezers and fridge-freezer combinations with electronic controls

Additional lock barrels

Up to 10 additional lock barrels to protect the stored products against unauthorised access are available as accessories for the laboratory appliances with electronic controller. In case of multiple appliances, different locks can be installed to ensure that the respective appliance can only be accessed by the staff members responsible for it.

Stacking kit

A stacking kit is available as an accessory for combining the LKUv 1613, LKUv 1610, LKUexv 1610 and LGUex 1500 models as desired. This allows stacking a glass door appliance and solid door appliance or a refrigerator and freezer on a small footprint.

Evaporator cover

An evaporator cover can be installed for added safety, to ensure that cold-sensitive products cannot touch the evaporator.

Foot-pedal door opener

The optional foot-pedal opener is useful when you don't have a hand free.

Roller bars and adjustable legs

30 mm high roller sets can be retrofitted to the under-worktop LKUv models and height-adjustable legs can be retrofitted to the upright LKv models. The legs are adjustable between 115 mm and 170 mm in height.

Shelves plastic-coated

Additional plastic-coated grid shelves can be retrofitted as required to provide extra storage options. The sturdy grid shelves have an extremely high loading capacity of up to 60 kg.
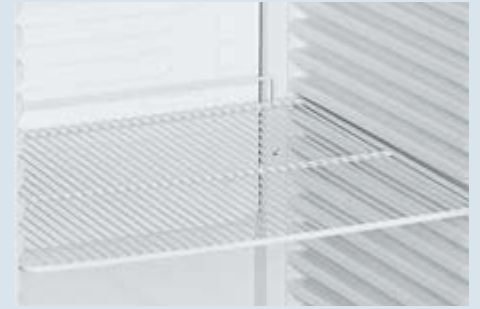
Section: Laboratory refrigerators and freezers with electronic controls and spark-free interior

NTC spark-free product temperature sensor

An NTC product temperature sensor without metal sheath is available as a retrofit kit for registering product temperatures. The registering temperatures can either be read by the control system or transferred to an external documentation system via the RS 485 interface.

Interface converter with monitoring software

A special interface converter including LTM monitoring software is available for central documentation of the temperature profile data and alarm events of multiple appliances via the RS 485 serial interface. Capability is provided for interconnecting as many as 20 laboratory appliances and centrally documenting their parameters. Alarm forwarding or regular status reports to up to three email addresses can be configured as an additional feature. Commercially available converters can be used to connect the connected appliances to a PC via WLAN or LAN. Software requirements: PC with Windows® operating system.

Additional lock barrels

Up to 10 additional lock barrels to protect the stored products against unauthorised access are available as accessories for the laboratory appliances with electronic controller. In case of multiple appliances, different locks can be installed to ensure that the respective appliance can only be accessed by the staff members responsible for it.

Glass shelves

Additional glass shelves can be retrofitted to the LCexv, LKexv and LKUexv models as required to provide extra storage options. The glass shelves made of toughened safety glass meet the standards for spark-free refrigerators in accordance with ATEX and have a loading capacity of up to 40 kg.

Accessories

Section: Laboratory refrigerators and freezers with electronic controls and spark-free interior

Stacking kit

A stacking kit is available as an accessory for combining the LKUexv and LGUex models as well as other under-worktop models in the LKUv range. This allows stacking laboratory fridge-freezers on a small footprint.

Roller bars and adjustable legs

30 mm high roller sets can be retrofitted to the under-worktop LKUexv models and height-adjustable legs can be retrofitted to the upright LKexv models. The legs are adjustable between 115 mm and 170 mm in height.
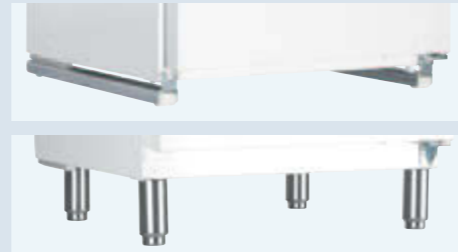
Evaporator cover

An evaporator cover can be installed for added safety, to ensure that cold-sensitive products cannot touch the evaporator.

Section: Laboratory refrigerators with analogue controls and spark-free interior

Glass shelves

Additional glass shelves can be retrofitted to the LKexv models as required to provide extra storage options. The glass shelves made of toughened safety glass meet the standards for spark-free refrigerators in accordance with ATEX and have a loading capacity of up to 40 kg.

Castor base

A castor base is available as an accessory for the LKexv 5400, 3600 and 2600 models to allow flexible use of the appliances in different rooms.

Adjustable legs

Adjustable-height legs can be retrofitted to the LKexv 5400, 3600 and 2600 models for easy cleaning underneath. They are adjustable between 115 mm and 170 mm in height.

Additional lock barrels

Up to 10 additional lock barrels to protect the stored products against unauthorised access are available as accessories for the laboratory appliances. In case of multiple appliances, different locks can be installed to ensure that the respective appliance can only be accessed by the staff members responsible for it.
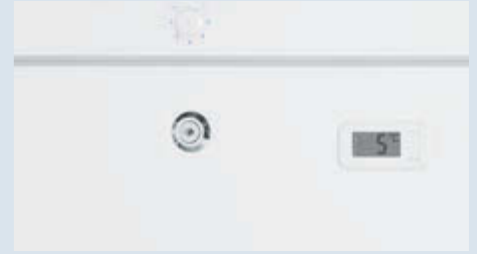
Section: Laboratory chest freezers down to -45°C

NTC product temperature sensor

An NTC product temperature sensor for logging product temperatures is available as a retrofit kit for the laboratory chest freezers. The logged product temperatures can either be read by the electronic controller or transferred to an external documentation system via the existing RS 485 interface.

Interface converter with documentation software

A special interface converter including LTM documentation software is available for central documentation of the temperature profile data and alarm events of multiple appliances via the RS 485 serial interface. It is possible to network as many as 20 laboratory appliances and centrally monitor their parameters. Alarm forwarding or regular status reports to up to three email addresses can be configured as an additional feature. Commercially available converters can be used to connect the connected appliances to a PC via WLAN or LAN. Software requirements: PC with Windows® operating system.

Baskets

The optional baskets provide an optimum overview of the stored preparations and can help to improve the handling and organising of the freezer contents.

Liebherr commercial appliances can be found at specialist retailers where providing first-class service and expert advice is their top priority.

You can find an overview of all Liebherr appliances in our main catalogues. Available in stores or on home.liebherr.com.

Refrigerators and freezers Horeca

Refrigerators and freezers Bakery

Refrigerators Drinks industry

Freezers for the frozen food and ice-cream industries

Wine Special

Pharmacy fridges

Smart communication on all fronts

Fresh MAG
Discover the world of Liebherr-Appliances with the latest interesting news, stories, valuable tips and tricks on food storage, recipes and lots more besides!

WineGuide App
A brief overview of Bordeaux wines and their producers, plus storage information.

apps.home.liebherr.com

Find out which app is available for which operating system (Apple, Android etc.), and which device type.

You Tube
The Liebherr-Hausgeräte YouTube channel provides interesting and helpful films showing you the functions of Liebherr refrigerators and freezers.

News, product launches and special promotions can be found on our Facebook page, the Liebherr blog, on Instagram and Pinterest.

socialmedia.home. liebherr.com

Learn all about our current social media channels.

home.liebherr.com