

# Scientific and Healthcare 2024

Next-level cooling solutions

## LIEBHERR

Refrigeration and freezing



### Our catalogue programme

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

You can find an overview of other Liebherr appliances in our catalogues. Available in stores or at [home.liebherr.com](http://home.liebherr.com).



### BIM data now available

The cooperation between Liebherr-Hausgeräte and Specifi® gives planners and dealers worldwide access to a digital Liebherr appliances library with BIM models for the food service and scientific industries. Compatible with AutoCAD® and Revit. [home.liebherr.com/bimdata](http://home.liebherr.com/bimdata)



For more information about our technical specifications, go to: [home.liebherr.com/scientifichealthcare](http://home.liebherr.com/scientifichealthcare)

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Scientific and Healthcare 2024  
[home.liebherr.com](http://home.liebherr.com)





## Best results without fail

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Reliable refrigeration of temperature-sensitive substances poses enormous challenges for the research and healthcare sectors. To help you overcome every one of them, Liebherr offers high-quality refrigerators and freezers combined with innovative monitoring solutions and a comprehensive range of services.

For example, the network connection of refrigerators and freezers with SmartMonitoring guarantees maximum reassurance and a significant reduction in workload. This is also ensured by our high-quality service – with ongoing support.

And, in terms of sustainability, we can boast more than 70 years of expertise and a passion for professional refrigeration and freezing – with unsurpassed energy efficiency, natural refrigerant and extremely long-lasting appliances.

The quality that characterises Liebherr pays off in many ways. On the following pages you can find out how research and healthcare can benefit from our complete solutions.



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Earthmoving



Material handling



Specialist civil engineering



Mining



Mobile and crawler cranes



Tower Cranes



Concrete technology



Maritime cranes



Aerospace and transportation systems



Gear technology and automation systems



Components



Hotels



Refrigerators and freezers

## A tradition of reliability admired the world over.

For 75 years Liebherr has offered high-quality products for pioneering industries. With our customers and partners all over the world, we constantly reach new heights.

### One big family

The Liebherr Group was established in 1949 by Hans Liebherr. With a history spanning 75 years, the family-run company is characterised by stability and reliability. Liebherr is one of the biggest manufacturers of construction equipment and is also successful in many other industries. The Group has a decentralised organisation with more than 50,000 employees worldwide and is divided into independently operating business units.

The Group now encompasses 13 product segments – earthmoving machinery, material handling technology, deep foundation machines, mining, mobile and crawler cranes, tower cranes, concrete technology, maritime cranes, aerospace and transportation systems, gear technology and automation systems, refrigerators and freezers, components and hotels – and comprises more than 140 companies across all continents. The holding company of the Group is Liebherr-International AG in Bulle (Switzerland), all of whose shareholders are members of the Liebherr family.



### Cutting edge combined with experience: Appliances

The Appliances division was established at the Ochsenhausen site in 1954 and for many years it has played an important part in the development of the Group. For 70 years, Liebherr has been a premium manufacturer of innovative refrigerators and freezers for domestic and commercial use. With an annual production of more than 2.2 million appliances, Liebherr is one of Europe's leading suppliers of cooling and freezing appliances. The five production sites in Ochsenhausen (Germany), Lienz (Austria), Radinovo (Bulgaria), Kluang (Malaysia) and Aurangabad (India) form a manufacturing network for refrigerators and freezers that meets all the most up-to-date standards.

Liebherr is active all over the world. With a dense network of sales subsidiaries and offices in Bulgaria, Germany, the UK, Austria, Canada, Malaysia, Russia, Switzerland, Singapore, South Africa and the USA, the refrigeration and freezing specialists ensure that customers receive expert advice and that service and maintenance work is provided professionally on site.

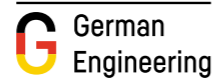


## Quality is in our DNA.

Our work is driven by the high demands of our customers worldwide. For 70 years, we have been offering high-quality appliances for private and commercial use that meet these high demands, proving their durability and repaying the investment in them.

### Specialists in refrigeration and freezing

With outstanding quality, pioneering technologies as well as aesthetic yet user-friendly design, Liebherr sets new standards again and again. How do we do it? By specialising in what we do: developing and manufacturing outstanding refrigerators and freezers, especially for professional use. Research, laboratories and medicine are just some of the areas for whose special requirements our appliances are explicitly designed – with a clear mission: to make your demanding day-to-day work easier with maximum precision and safety.



### Cleverly built for maximum safety

Sensitive samples, research materials and preparations allow no room for error with refrigeration. Reliability is crucial. And that's exactly what Liebherr stands for. Liebherr professional appliances have been specifically developed for the challenging requirements of the research, laboratory and medical sectors. With clever design details, high-quality materials and innovative technologies, they provide maximum safety and ease of use.



### The Liebherr factor:

#### Professional refrigerators and freezers

- Specially developed for research, laboratories and medicine
- Safe storage of sensitive substances
- Top quality thanks to elaborate testing procedures
- Complete solution in combination with SmartMonitoring and services

### Tested down to the finest detail – and beyond.

From conception through to development and production to marketing, at Liebherr we do everything we can to offer top-quality, innovative products. We test all the mechanical, electronic and refrigeration components for reliable operation, from the development stage onwards. Before we approve a door hinge, for example, it must undergo at least 100,000 opening cycles. You can count on this: your Liebherr appliance will be the professional partner at your side – 24 hours a day, 365 days a year.



# Complete responsibility

Responsible use of our resources is our objective and further continuous improvement throughout the product lifecycle is the long-term aim.

This is why we continually develop more environmentally friendly methods for manufacturing more sustainable products – with the familiar Liebherr quality. As well as high energy efficiency, we put a special focus on durability and ensuring that spare parts are available for at least ten years.

### Conscientiously developed

We take every aspect of sustainability into account when designing our products. Our product responsibility begins during the development of the appliances and continues with the careful organisation of our production and supply chains. This means the correct choice of materials with regard to recycling as well as minimising the use of energy during production are important factors. During the use phase our almost maintenance-free appliances are characterised by very low energy consumption and low operating costs.

### Naturally refrigerated

We were the first to convert our complete range of refrigerators to CFC-free refrigerants and blowing agents. We now only use the natural refrigerants R600, R290 and R170. These are specially designed for highly efficient compressors and also result in lower energy consumption and electricity costs.

### Responsibly manufactured

We handle resources responsibly and use renewable energies in the production of all of our appliances. We recycle the energy released during production, for example, to heat buildings. We also purify the water after the manufacturing process to make sure that it is free of pollutants. In addition, we are continuously reducing our waste volume by consistently separating waste and recycling production materials wherever possible.



### Europe-wide certification

All our European production sites are certified according to the international standards for quality management (ISO 9001), environmental management (ISO 14001) and energy management (ISO 50001).

### EcoVadis Gold

We handle the issue of Corporate Responsibility holistically and at all stages of the product life cycle. Our efforts have been awarded gold for 2023 by EcoVadis, the world's leading Corporate Social Responsibility ratings agency. We are proud to be among the top 3% of companies assessed by EcoVadis.



## Our path to the future

- recyclable product design
- materials able to be separated
- reuse of materials

- maximum energy efficiency
- maximum durability
- simple repair
- optimal storage conditions



- more renewable materials
- more recycled materials
- fewer environmentally harmful raw materials

- lower energy consumption
- more renewable energies
- less waste

### The Liebherr factor:

#### Environmentally conscious development and production:

- Appliances with very low energy consumption
- Natural refrigerant
- Resource-saving manufacturing processes
- European sites are fully certified
- Gold medal from EcoVadis

# Choose refrigeration and freezing from the professionals

Whether in biotechnology, pharmaceutical research, or in healthcare, the highly demanding work relies on refrigeration that meets the highest standards. With specially developed professional appliances and innovative SmartMonitoring, Liebherr offers solutions for the stringent requirements of the medical and scientific sectors – and good arguments for choosing our systems expertise.

Five good reasons for our outstanding performance.

Discover all the details of SmartMonitoring starting on page 90 and find out how the digital system maximises safety and lightens your workload. Availability varies by country, please contact your Liebherr Account Manager for details.

## Reliable temperature stability

Liebherr professional appliances are characterised by outstanding temperature stability. Sensitive vaccines, preparations, samples and medicines are cooled to precise, constant temperatures – even when there are extreme climatic conditions. In addition, SmartMonitoring monitors temperature stability and sends alerts in the event of deviations.

## Standard safety functions

Liebherr stands for maximum protection of valuable products. Numerous safety functions ensure that the quality of temperature-sensitive substances is constantly assured – as is the quality of your work. If you want maximum certainty, you can use our cloud-based SmartMonitoring solution, with instant notifications for additional peace of mind.

## Innovative alarm systems

Research and medicine allow no room for inaccuracy – and that includes storage temperatures. Liebherr professional appliances are equipped with various alarm systems that immediately warn of any deviations and help you to realistically assess critical situations. In addition to the integrated alarm systems, SmartMonitoring also alerts you by text message, email or phone.

## Sustainability and economy

Our refrigerators and freezers only use natural refrigerants and are characterised by high efficiency as well as very low energy and operating costs. The outstanding TCO (total cost of ownership) is also down to the long service life, easy care and, not least, the fact that the appliances need hardly any maintenance.

## Compliance with standards and directives

Liebherr refrigerators and freezers comply with all the various standards, norms and directives on storage quality, hygiene and safety. In addition, SmartMonitoring documents all the relevant temperature data and automatically generates reports.





## Stable temperature – constant quality

Liebherr appliances offer maximum reliability for storing sensitive substances by ensuring constant temperatures. SmartMonitoring additionally monitors the temperature stability and sends an alarm if there are any deviations. This not only maintains the correct climate for storage, but also the value of your stored products.

### Precise temperature ranges

Temperature fluctuations must be minimal to ensure that the quality of sensitive substances is preserved. Liebherr refrigerators will not deviate from the set temperature by more than  $\pm 3$  °C, and Liebherr freezers will not stray by more than  $\pm 5$  °C. This optimally protects the quality of their valuable contents.

### Stability is in the air.

The circulating-air refrigeration system and the optimal airflow in the interior keep the temperature stable and ensure that the set temperature is quickly restored after the door has been opened. This means frequent opening of the door during day-to-day use has little effect on temperature stability.



### The Liebherr factor:

#### Consistent refrigeration for reliable storage:

- Temperature setting accurate to a tenth of a degree
- Low tolerance for deviations
- Innovative circulating-air refrigeration system
- Optimal airflow and circulation
- Constant monitoring of the precise storage temperature

## Safety as standard

When handling highly sensitive substances, safety has top priority. Whether the risk is unauthorised access or loss of quality – Liebherr protects valuable contents with numerous safety functions and optional SmartMonitoring.

### SmartLock: the door that thinks

To prevent products from accidentally entering circulation after an interruption in the cold chain, SmartLock automatically locks the door in the event of an alarm. Only authorised people can unlock it again.

### Self locking door: with safety hinges

To make loading, unloading and cleaning easier, the appliance door stays open if opened by more than 90°. If the opening angle is less than 90°, it closes automatically for safety.

### Locking systems: individual and secure

Liebherr appliances can be electronically locked and unlocked using an individual PIN code and digital remote control by as many users as you like – without them having to share a key.

### +2 °C SafetyDevice: protection from freezing

If the temperature falls below +2 °C due to a malfunction, the SafetyDevice takes control, stabilising the temperature, activating the alarm and protecting the contents from freezing.



### SmartMonitoring: extra safety

Liebherr's digital monitoring solution checks and documents the storage temperature and alerts you immediately in the event of deviations for maximum safety in refrigeration and freezing and optimal protection for your valuable contents.

### The Liebherr factor:

#### Integrated safety functions and SmartMonitoring to protect sensitive substances:

- Self-closing door at an opening angle of less than 90°
- Automatic locking in the event of an alarm
- Electronic/mechanical locking systems
- Protection from freezing in the event of malfunctions
- Monitoring, documentation and alarms when required thanks to SmartMonitoring



## Checks are good, but alarms are better

Professional refrigerators and freezers together with SmartMonitoring guarantee maximum storage safety through constant temperature monitoring, immediate alarms for uncontrolled fluctuations and recording of critical situations.



**LightAlarm:**  
know at a glance when action is needed

If there is an uncontrolled temperature rise, if a door has been left open or there are any other problems, the interior light of the appliance starts flashing. In the case of glass-door appliances, this quickly reveals where action is needed. With solid-door appliances, the flashing interior warns you to close the door immediately to preserve the storage quality.



**Alarm relay:**  
don't miss any deviations

In the event of an alarm, the responsible control centre is informed immediately, usually through connections to the building control system. You can define in advance which alarms are to be forwarded, as well as set how long forwarding remains active and whether a reminder should be sent after the alarm is acknowledged. This allows you to react immediately in critical situations.



**Alarm history:**  
quality check made easy

In order to be able to evaluate the quality of the stored substances, a clear history of anomalies that have occurred is necessary. The alarm history logs important data such as the date, duration and maximum temperature of the last ten, and can be accessed and reviewed from anywhere.



**Integrated data logger:**  
can be traced back for years

To ensure full traceability, the integrated data logger records the temperature profile, alarm history and service information for up to five years. The stored data can be read directly from the appliance via a USB interface.



**SmartMonitoring:**  
additional digital alarms

If there are deviations in the storage temperature, SmartMonitoring immediately alerts you by email, or by text message or phone (optional). This helps you react before problems arise. In addition, SmartMonitoring documents all relevant temperature data and automatically generates reports. For more details see page 90.

## Maximum performance at a minimal cost.

Rising costs increase the requirements that professional refrigerators and freezers must meet. Liebherr scores highly here on every level with sustainably economical appliances.

**Ultra-efficient:**  
good for people and the environment

Energy-efficient refrigerators and freezers help with ever increasing electricity prices. Liebherr fully utilises the savings potential of every component – from the compressor to the seal, to the lighting and electronics. The ultra-efficient appliances in the Perfection series for example demonstrates how this has a positive effect on your overall operating costs.

**Outstanding service life:**  
satisfaction guaranteed

Liebherr appliances are designed for a long service life. Extremely robustly manufactured, they withstand the demands of daily use. This is quality that pays off – for many years to come.

**Almost maintenance free:**  
saves costs, time and aggravation

Liebherr's professional freestanding appliances operate without filters or other components and parts that require regular replacement. They only need to be regularly cleaned and calibrated according to your individual needs.



### The Liebherr factor:

Very low energy and total operating costs:

- Energy-efficient
- Extremely long service life
- Almost maintenance-free

# Meeting the highest expectations. And the applicable standards and directives.

Hardly any sector has more stringent requirements for the storage of substances than those of research, laboratories and medicine. Liebherr professional appliances are specially developed to meet these extremely strict requirements for aspects such as hygiene and occupational safety.



## DIN 13277 compliance

Laboratory and pharmaceutical refrigerators from Liebherr meet all the necessary property and performance criteria to fully comply with DIN 13277.

## IEC 61010-2-011 compliance

Liebherr refrigerators and freezers specially developed for storing temperature-sensitive products are CE safety-compliant. This ensures that all mechanical and electrical requirements for injury-free operation are met – and that you and your team are always kept safe.

## ATEX compliance

Liebherr laboratory appliances conform to EN/IEC 60079-0 / EN-IEC 60079-7 and comply with EU Directive 2014/34/EU ("ATEX Directive"). With an interior classified according to <Ex> II 3 G Ex ec IIC T6 (declared as Zone 22), they are suitable for flammable substances in closed containers that could form explosive atmospheres.

## Cleanroom compatibility

Liebherr fridges and freezers in the new scientific line have been tested for use in cleanrooms in accordance with DIN EN ISO 14644. This saves you needing to carry out an additional risk assessment.

## Antimicrobial handle

A benefit for users but a bane for germs: The easy-turn handle mechanism makes opening the door effortless. It contains special antimicrobial substances that reduce bacteria by up to 99.99%\*. Regular and time-consuming disinfection is not necessary. This means the appliance is extremely safe even if many people have access to it.

\*According to ISO 22196:2011

## Recommended cleaning products and disinfectants

Liebherr appliances are designed for a long service life. To maintain them, the manual or separate instructions contain recommendations for cleaning products and disinfectants that have been tested by Liebherr for safe use. This way you can be sure that you are not accidentally harming your appliance when you are trying to take care of it.

## Easy-to-clean interior

The inner liner is made of polystyrene: a fully recyclable, robust, and odourless plastic. Manufactured seamlessly from one piece, it has no hidden dirt traps and the large, rounded corners can be cleaned quickly and easily. It's the perfect combination of sustainability and hygiene.

## SmartMonitoring

The digital, cloud-based solution from Liebherr helps provide proof of compliance and full documentation of the temperature data (find out more on page 90).



## The Liebherr factor:

Designed to meet the strictest standards, norms and directives:

- Suitable for storing sensitive substances in accordance with **DIN 13277**
- Safe operation in accordance with **IEC 61010-2-011**
- ATEX compliant for storing explosive and highly flammable substances
- Cleanroom compatible
- Hygienic and easy-to-clean design
- SmartMonitoring for reliable documentation as proof of temperature compliance



## SmartMonitoring: for maximum safety and convenience

SmartMonitoring makes reliable Liebherr appliances even safer and takes protection of valuable contents to a new level. The digital, cloud-based solution automatically and continually monitors and documents the storage temperature – relieving you of a daily task that takes time and attention.

### Continuous monitoring

SmartMonitoring constantly and accurately monitors temperature stability – even outside regular working hours, such as at weekends or on public holidays. And it can even do it at different sites for multiple appliances.

### Complete documentation

SmartMonitoring documents the temperature and all relevant refrigeration parameters for your stored substances around the clock.

### Immediate alarms in the event of deviations

If there are deviations in the storage temperature, you are immediately alerted by email, text message or phone. This way, you can react before problems arise.

### Simple commissioning

The new generation of research, laboratory and medical appliances are either already equipped with the SmartModule or can be retrofitted with it and immediately connected to SmartMonitoring. Predecessor models can be easily connected via the SmartCoolingHub. Find out how Liebherr Service can help you take the first steps towards maximum safety.

Discover all the details of SmartMonitoring starting on page 90 and find out how the digital solution maximises safety and lightens your workload. Availability varies by country, please contact your Liebherr Account Manager for details.



Alternatively, go to  
[home.liebherr.com/smartmonitoring](http://home.liebherr.com/smartmonitoring)

### The Liebherr factor:

#### Maximum safety and convenience with SmartMonitoring:

- An easy, simple and convenient monitoring solution for all network-capable Liebherr appliances
- Constant monitoring of the precise storage temperature
- Frees you up from time-consuming checks and documentation
- Reliable, digital alarm systems
- All relevant data visible at a glance at any time

## Endlessly reliable. Take our word for it.

In research, laboratories and medicine, there are ever more jobs to do, and less time to do them in. Liebherr takes some of them off you. Let us lighten your daily workload – with many different services to ensure reliable refrigeration from the professionals.

### Delivery right to your door

Liebherr offers you various delivery options. We can deliver your new appliance to the kerbside or take it right in to the place of use and unpack it there. We'll not only take back the packaging for disposal, but also your old appliance if you want (conditions and charges may apply).

### Maintenance: doing it right

Liebherr appliances for research, laboratory and medicine require an impressively low amount of maintenance.

## Comprehensive solution for everyday use

Fulfills the highest standards for data protection

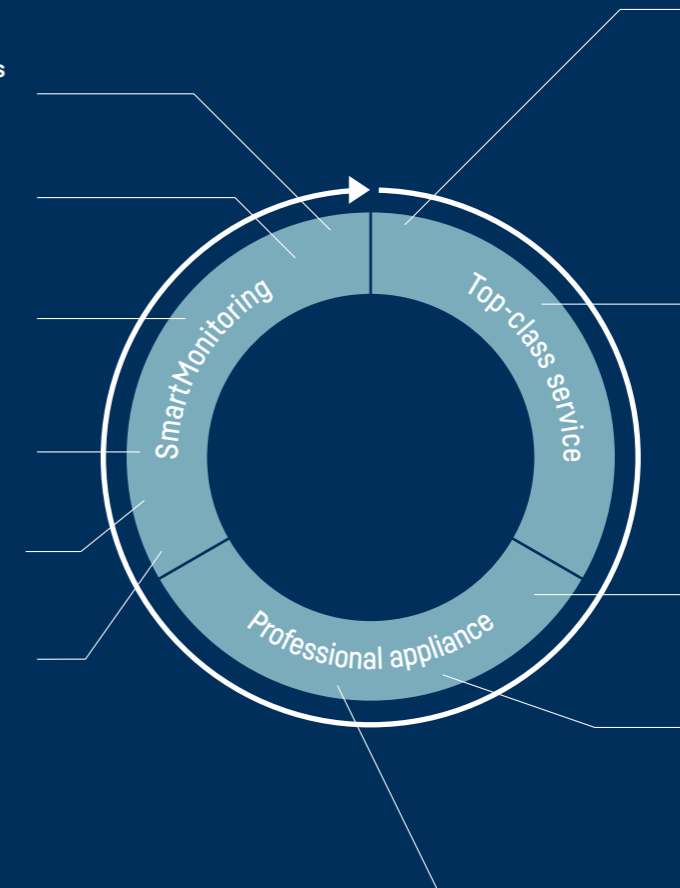
Protect your valuable substances

Reliable documentation for proof of temperature compliance

Prevention of damage and loss of quality

More time to concentrate on the essentials

Simple and convenient monitoring solution



Professional delivery service from kerbside to place of installation, including disposal of packaging and old appliances

Fast and professional customer service

Large selection of professional appliances for research, medicine and laboratories

Maximum precision and reliable temperature stability

Meets the strict DIN 13277 standard on storage of temperature-sensitive substances such as pharmaceuticals



## Two unique series

Whether it's a large research facility or a small laboratory, a doctor's surgery, a nursing home or a pharmacy – our range includes models for every requirement. But however different the appliances are, they all have one thing in common: their first-rate quality.

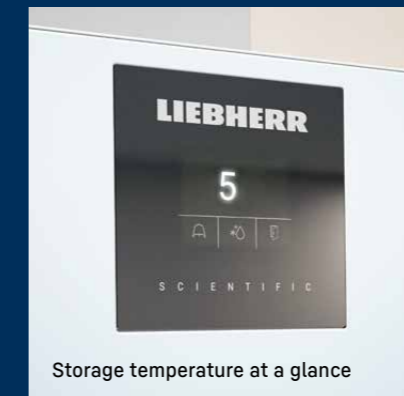
## Performance      Perfection

### Performance series

All the appliances in the Performance series comply with the safety standard IEC 61010-2-011. In addition, some appliances meet other standards such as the ATEX directive.



Optimal temperature stability



Storage temperature at a glance



LED interior light



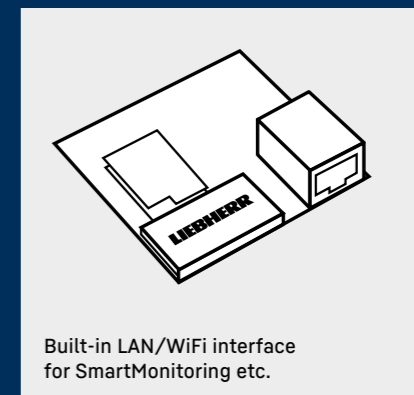
Antimicrobial handle with opening mechanism



LightAlarm and SmartLock

### Perfection series

The appliances in the Perfection series not only comply with the IEC 61010-2-011 safety standard but also DIN 13277, which specifies requirements for laboratory and medical applications.



Built-in LAN/WiFi interface for SmartMonitoring etc.

	<b>MediLine</b>	<b>MediLine</b>	<b>MediLine</b>
	<b>ATEX</b> LKexv	<b>General laboratory use</b> SUFsg	<b>General laboratory use</b> LKPv/LGPv
<b>Temperature stability</b>	Refrigerators < ± 5 K deviation from setpoint	Refrigerators < ± 3 K deviation from setpoint	Refrigerators < ± 3 K deviation from setpoint
	Freezers < ± 7 K deviation from setpoint	Freezers < ± 5 K deviation from setpoint	Freezers < ± 5 K deviation from setpoint
	SmartFrost	Freezers with NoFrost	Freezers with NoFrost
	Calibration option	Calibration option	Calibration option
<b>Storage safety</b>	Visual and audible alarms	Visual and audible alarms	Visual and audible alarms
	Custom alarm settings possible	Custom alarm settings possible	Custom alarm settings possible
	Alarm relay	Alarm relay	Alarm relay
		Alarm test function	Alarm test function
	Alarm with battery backup (72 h) immediately upon power failure		Alarm with battery backup (72 h) immediately upon power failure
		Alarm history with real-time clock and 6 events	Alarm history with real-time clock and 6 events
	Integrated data logger		Integrated data logger
		NTC product sensor optional	NTC product sensor optional
		Min./max. temperature log	Min./max. temperature log
		Self-closing door at < 60°	Self-closing door at < 60°
	Mechanical lock	Mechanical lock	Mechanical lock
<b>Interfaces</b>	Interface Ethernet	Interface Ethernet	Interface RS485
	Modbus RTU communication protocol	Modbus RTU communication protocol	Modbus RTU communication protocol
	USB interface for reading the data logger		USB interface for reading the data logger
<b>SmartMonitoring</b>	SmartCoolingHub can be retrofitted	SmartCoolingHub can be retrofitted	SmartCoolingHub can be retrofitted
<b>Features</b>	Rotary control with digital thermometer	LED 7-segment display with buttons	LED 7-segment display with buttons
		Maintenance timer 360 days	Maintenance timer 360 days
		Castors as standard	Castors as standard
		3 Sensor feedthroughs	Sensor feedthrough
			Refrigerators: glass door models with ceiling lighting
			Freezers: no lighting
	Ergonomic slimline handle	Aluminum lever handle	Full-length integrated handle
<b>Energy consumption</b>			
<b>Compliance</b>	Safety according to IEC 60335-2-89	Safety according to IEC 61010-2-011	Safety according to IEC 60335-2-89
	ATEX directive		

	<b>MediLine</b>	<b>Performance series</b>	<b>Perfection series</b>
	<b>General laboratory use/ATEX</b> LKUv/LKUexv/LGUex	<b>General laboratory use/ATEX</b> SRFvg/SFFsg/SRFfg/SFFfg/SCFfg	<b>General laboratory use</b> SRFvh/SFFvh/SCFvh
	Refrigerators < ± 3 K deviation from setpoint	Refrigerators < ± 3 K deviation from setpoint	Refrigerators < ± 2 K deviation from setpoint
	Freezers < ± 5 K deviation from setpoint	Freezers < ± 5 K deviation from setpoint	Freezers < ± 5 K deviation from setpoint
		Freezers with SmartFrost	Freezers with NoFrost
	Calibration option	Calibration option	Calibration option
	Visual and audible alarms	Visual and audible alarms	Visual and audible alarms
	Custom alarm settings possible	Custom alarm settings possible	Custom alarm settings possible
	Alarm relay	Alarm relay	Alarm relay
	Alarm test function	Alarm test function	Alarm test function
	+2 °C SafetyDevice function (Refrigerators)	+2 °C SafetyDevice function (Refrigerators)	+2 °C SafetyDevice function (Refrigerators)
		Alarm immediately upon power failure	Alarm with battery backup (12 h) immediately upon power failure
	Alarm history with real-time clock and 6 events		Alarm history with real-time clock and 10 events
			Integrated data logger
	NTC product sensor (optional for LGUex)		PT1000 product sensor (optional for SFFvh models)
	Min./max. temperature log	Min./max. temperature log	Min./max. temperature log
	Self-closing door at < 90°	Self-closing door at < 90°	Self-closing door at < 90°
	Mechanical lock	Mechanical lock	Mechanical lock
	Interface RS485	Optional LAN/WiFi	Integrated LAN/WiFi
	Modbus RTU communication protocol	Local API (optional via SmartModule)	Local API
			USB interface for reading the data logger
	SmartCoolingHub can be retrofitted	SmartModule can be retrofitted	SmartModule integrated
	LED 7-segment display with buttons	Monochrome display, touch buttons	2.4" touch & swipe colour display
		Individually adjustable maintenance timer	Individually adjustable maintenance timer
	Castors/adjustable feet as accessories, 75 cm-wide appliances with castors as standard	Castors/adjustable feet as accessories	Castors/adjustable feet as accessories, 75 cm-wide appliances with castors as standard
	Evaporator cover (stops items freezing to inner liner), optional (except LKUexv, LGUex)	Evaporator cover (stops items freezing to inner liner), only for glass door models, optional for insulated door models (except SRFfg/SFFfg)	Evaporator cover (stops items freezing to inner liner), standard for all models (except SFFvh)
	Sensor feedthrough	Sensor feedthrough	Sensor feedthrough
	Refrigerators: glass door models with ceiling lighting	Refrigerators: glass door models with ceiling lighting	Refrigerators: Insulated and glass door models with vertical lighting
	Freezers: no lighting	Freezers: no lighting	Freezers: LED lighting in the front housing
	Ergonomic slimline handle with opening mechanism	Antimicrobial handle with opening mechanism	Antimicrobial handle with opening mechanism
		Super-efficient	Ultra-efficient
	Safety according to IEC 60335-2-89	Safety according to IEC 61010-2-011	Safety according to IEC 61010-2-011
	ATEX directive (LKUexv, LGUex)	ATEX directive (SRFfg/SFFfg/SCFfg)	Fulfils DIN 13277





## ULT freezers – maximum safety and efficiency at ultra-low temperatures

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Liebherr ultra-low temperature freezers set new standards in the temperature range from  $-40\text{ }^{\circ}\text{C}$  to  $-86\text{ }^{\circ}\text{C}$ . Not only do they offer unprecedented quality and reliability for storing highly sensitive substances, but also outstanding energy efficiency and ease of use that you will notice every day. Robust, economical and extremely safe, the series of appliances from the experts in freezing for laboratories and research facilities have an impressive number of functions and features.

For optimal protection of your valuable samples, chemicals and research materials. And for the satisfaction of being able to concentrate fully on your work.

# The advantages at a glance

## SmartMonitoring

The cloud-based digital solution continuously monitors and documents temperatures and alerts you immediately via email, text message or phone if any deviations occur.

## Stainless steel workmanship

The interior, shelves and inner doors are made of rust-proof stainless steel and are therefore easy to clean. This enables optimum hygiene.

## Shelves

Three stainless steel shelves in the interior, that can be freely adjusted in 24 mm increments, offer flexibility for space-saving storage, tailored to your requirements. You can add more shelves if required.

## Serial interfaces

Interfaces for connecting to documentation and monitoring systems such as SmartMonitoring, as well as a volt-free contact for sending alarms to external remote warning systems.



## Data recording

There are two feedthroughs (28 mm) on the top and bottom left for installing separate sensors for external monitoring or data recording systems in the interior.

## Unloading ramp

No forklift required: the unloading ramp integrated in the packaging helps you easily position the appliance.



## Detachable inner door

The detachable inner doors made of rust-proof stainless steel prevent loss of cold air when opening and are also easy to clean.

## Door seals

The innovative door seal design, consisting of two all-round seals, makes the door completely airtight when closed. This also helps reduce energy consumption. The seals can be replaced separately and without tools.



## Intuitive electronics

The intuitive electronics with integrated real-time clock allow the temperature to be set with an accuracy of one tenth of a degree. The control and display panel is resistant to dirt and easy to clean. Flexible parameter adaptations, such as offset and alarm value settings, allow the appliances to be quickly and easily adapted and qualified for your applications and requirements.

## Monitoring system

The 3-stage monitoring system, consisting of integrated alarm notifications for temperature, door or mains electrical faults, upgradable features such as CO<sub>2</sub> emergency refrigeration and online monitoring, ensures optimum protection during storage. In the event of a power failure, integrated 12-volt batteries immediately supply the electronics with power. Notifications are provided in critical situations.

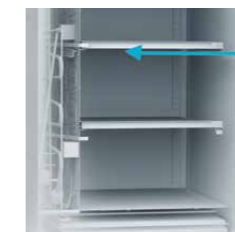


## Insulation

The combination of CFC-free polyurethane foam and vacuum-insulated panels ensures the best possible insulation to prevent rapid temperature increases.

## Pressure compensation valve

When the door is opened and closed, the air exchange creates a vacuum which makes it difficult to open the door again immediately afterwards. The heated pressure compensation valve quickly equalises the vacuum and the door can be easily opened again after just a few seconds.

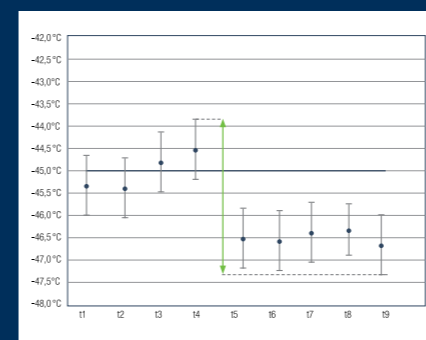




## Quality right down to the smallest detail

### Mechanical lock

The mechanical lock protects the stored products from unwanted access. The door is opened with an ergonomic and unbreakable aluminium lever handle.



### Minimal temperature fluctuations

In order to maintain the quality of the stored samples, it is important to minimise temperature fluctuations. Liebherr ultra-low temperature freezers are characterised by extremely low fluctuations, both within the appliance and over time.



### Low energy consumption

Ultra-low temperature freezers are among the appliances with the highest energy consumption in research facilities. Liebherr ultra-low temperature freezers are some of the most economical models on the market worldwide. In combination with highly insulating vacuum panels, the efficient cooling system allows economical operation, optimum energy savings and therefore low operating costs.



### Low heat generation

The efficient cascade cooling system with HC refrigerants generates significantly less heat than previous technologies. This saves costs in the thermal design of the room's air conditioning system. If heat dissipation via the room air conditioning is not possible, water cooling is available as an option.



### Connection to documentation and monitoring systems

All the appliances have a volt-free alarm output and an Ethernet interface for remote monitoring. This means the appliances can be connected to SmartMonitoring. In addition, the temperature and alarm records can be read via the integrated USB interface. Optionally, a 4-20 mA output allows the temperature value to be integrated into existing data recording systems.



### ULT data loggers

In addition to the SmartMonitoring system, Liebherr offer ULT data loggers, enabling the connection of non Liebherr appliances to the SmartMonitoring network.



### Find out more about SmartMonitoring

Scan the QR or visit [home.liebherr.com/smartmonitoring](http://home.liebherr.com/smartmonitoring)



### SUFsg 7001

MediLine

Gross / net capacity	728 / 700 litre
Exterior dimensions in mm (w / d / h)	1204 / 1082 / 1966
Interior dimensions in mm (w / d / h)	890 / 605 / 1300
Energy consumption in 365 days	2957 kWh
Ambient temperature range	+16 °C to +32 °C
Heat output	1224 kJ/h
Heat output system / Refrigeration system	air cooling / 2-stage cascade system
Refrigerant	R 290 / R 170
Sound power level <sup>1</sup>	47 dB(A)
Voltage / frequency	230V~ / 50 Hz
Connection rating	7.0 A
Temperature range	-40 °C to -86 °C
External cabinet finish	steel / white
Door material	steel
Internal liner material	stainless steel
Type of control	LED 7-segment display with buttons
Volt-free alarm contact	yes
SmartMonitoring compatible / Connectivity type	yes / SmartCoolingHub
Connectivity solution / Interface	retrofitable / LAN (Ethernet)
Data logger	integrated, USB interface
Power failure alarm	immediately upon power failure for 72 hrs
Cooling system	static
Pull-down time +22 °C to -80 °C	450 min
Warm-up time -80 °C to -60 °C / to 0 °C	250 min / 2220 min
Number / maximum number of storage shelves	4 / 11
Adjustable shelves	3
Shelf material	stainless steel
Usable shelf area in mm (w / d)	860 / 590
Shelf loading / Maximum total load	50 kg / 200 kg
Number of racks per shelf	6
Max. number of cryoboxes, 50 mm / 75 mm	528 / 336
Castors	castors with brake at the front, fixed castors at the rear
Access ports	3 x Ø 28 mm
Type of lock / Door hinges	mechanical / right hand hinged, not reversible
Gross / net weight	361 / 313 kg
Accessories	
Racks for cryoboxes	see page 36
Cryoboxes, set of 36	7790038
CO <sub>2</sub> backup system	7790048
Stainless steel storage shelves	7790050
Foamed inner doors	7790127
Cover for mains switch incl. key lock	7790051
4 - 20mA analogue output	7790042
SmartCoolingHub	6125784



### SUFsg 5001

MediLine

Gross / net capacity	491 / 477 litre
Exterior dimensions in mm (w / d / h)	920 / 1082 / 1966
Interior dimensions in mm (w / d / h)	606 / 605 / 1300
Energy consumption in 365 days	2884 kWh
Ambient temperature range	+16 °C to +32 °C
Heat output	1188 kJ/h
Heat output system / Refrigeration system	air cooling / 2-stage cascade system
Refrigerant	R 290 / R 170
Sound power level <sup>1</sup>	47 dB(A)
Voltage / frequency	230V~ / 50 Hz
Connection rating	7.0 A
Temperature range	-40 °C to -86 °C
External cabinet finish	steel / white
Door material	steel
Internal liner material	stainless steel
Type of control	LED 7-segment display with buttons
Volt-free alarm contact	yes
SmartMonitoring compatible / Connectivity type	yes / SmartCoolingHub
Connectivity solution / Interface	retrofitable / LAN (Ethernet)
Data logger	integrated, USB interface
Power failure alarm	immediately upon power failure for 72 hrs
Cooling system	static
Pull-down time +22 °C to -80 °C	360 min
Warm-up time -80 °C to -60 °C / to 0 °C	230 min / 2160 min
Number / maximum number of storage shelves	4 / 11
Adjustable shelves	3
Shelf material	stainless steel
Usable shelf area in mm (w / d)	580 / 590
Shelf loading / Maximum total load	50 kg / 200 kg
Number of racks per shelf	4
Max. number of cryoboxes, 50 mm / 75 mm	352 / 224
Castors	castors with brake at the front, fixed castors at the rear
Access ports	3 x Ø 28 mm
Type of lock / Door hinges	mechanical / right hand hinged, not reversible
Gross / net weight	308 / 254 kg
Accessories	
Racks for cryoboxes	see page 36
Cryoboxes, set of 36	7790038
CO <sub>2</sub> backup system	7790048
Stainless steel storage shelves	7790049
Foamed inner doors	7790070
Cover for mains switch incl. key lock	7790051
4 - 20mA analogue output	7790042
SmartCoolingHub	6125784



### SUFsg 3501

MediLine

Gross / net capacity	402 / 382 litre
Exterior dimensions in mm (w / d / h)	797 / 1082 / 1966
Interior dimensions in mm (w / d / h)	466 / 605 / 1300
Energy consumption in 365 days	2738 kWh
Ambient temperature range	+16 °C to +32 °C
Heat output	1116 kJ/h
Heat output system / Refrigeration system	air cooling / 2-stage cascade system
Refrigerant	R 290 / R 170
Sound power level <sup>1</sup>	47 dB(A)
Voltage / frequency	230V~ / 50 Hz
Connection rating	7.0 A
Temperature range	-40 °C to -86 °C
External cabinet finish	steel / white
Door material	steel
Internal liner material	stainless steel
Type of control	LED 7-segment display with buttons
Volt-free alarm contact	yes
SmartMonitoring compatible / Connectivity type	yes / SmartCoolingHub
Connectivity solution / Interface	retrofitable / LAN (Ethernet)
Data logger	integrated, USB interface
Power failure alarm	immediately upon power failure for 72 hrs
Cooling system	static
Pull-down time +22 °C to -80 °C	180 min
Warm-up time -80 °C to -60 °C / to 0 °C	170 min / 1300 min
Number / maximum number of storage shelves	4 / 11
Adjustable shelves	3
Shelf material	stainless steel
Usable shelf area in mm (w / d)	460 / 590
Shelf loading / Maximum total load	50 kg / 200 kg
Number of racks per shelf	3
Max. number of cryoboxes, 50 mm / 75 mm	264 / 168
Castors	castors with brake at the front, fixed castors at the rear
Access ports	3 x Ø 28 mm
Type of lock / Door hinges	mechanical / right hand hinged, not reversible
Gross / net weight	260 / 226 kg
Accessories	
Racks for cryoboxes	see page 36
Cryoboxes, set of 36	7790038
CO <sub>2</sub> backup system	7790048
Stainless steel storage shelves	7790657
Foamed inner doors	7790656
Cover for mains switch incl. key lock	7790051
4 - 20mA analogue output	7790042
SmartCoolingHub	6125784



**Ultra-low temperature freezers**

**Racks for cryoboxes**

Convenient and temperature-resistant storage systems for well-organised sample storage. Available as aluminium or stainless steel side-access racks for 5x4 or 6x4 50 mm boxes and as stainless steel front-access drawer racks for 5x4 or 6x4 50 mm boxes.

Maximum Loading SUFsg 5001: 8x Rack 5x4 + 8x Rack 6x4,  
 Maximum Loading SUFsg 7001: 12x Rack 5x4 + 12x Rack 6x4,  
 Maximum Loading SUFsg 3501: 6x Rack 5x4 + 6x Rack 6x4.



Aluminium side-access rack 5x4	7790003	Stainless steel side-access rack 5x4	7790027
Aluminium side-access rack 6x4	7790014	Stainless steel side-access rack 6x4	7790028
Aluminium side-access rack 5x4 + cryoboxes	7790015	Stainless steel front-access rack 5x4 + drawers	7790031
Aluminium side-access rack 6x4 + cryoboxes	7790025	Stainless steel front-access rack 6x4 + drawers	7790032
Stainless steel side-access rack 5x4 + cryoboxes	7790029	Stainless steel front-access rack 5x4 + cryoboxes + drawers	7790033
Stainless steel side-access rack 6x4 + cryoboxes	7790030	Stainless steel front-access rack 6x4 + cryoboxes + drawers	7790036



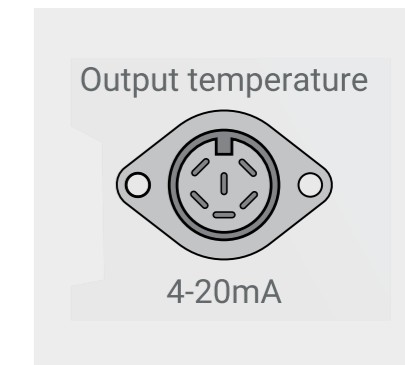
**Foamed inner doors**

The foamed inner doors provide the best possible insulation and temperature stability, ensuring efficient cooling and low power consumption.



**Cover for mains switch incl. key lock**

Protection against unintended disconnection or manipulation of the mains switch.



**4-20mA analogue output**

The 4-20mA interface displays the interior temperature as a current value, which for example can be imported into an independent system for recording or checking the internal temperature.



**Cryoboxes**

The set contains 36 durable and temperature-resistant cryoboxes made from water-repellent cardboard, with fixed 9x9 grid, for safe storage and transport of valuable samples.



**CO<sub>2</sub> backup system**

The CO<sub>2</sub> backup system ensures that the cooling of the stored samples continues at reduced temperatures for up to 72 hours in the event of a power failure. The CO<sub>2</sub> bottle is not part of the accessory.



**Stainless steel storage shelves**

Additional robust stainless steel shelves for flexible and individual partitioning of the interior at 24 mm increments.



**SmartCoolingHub**

The SmartCoolingHub provides the basis for connecting your professional Liebherr appliances. Up to 20 network-capable Liebherr appliances can be connected via cable.



**RS485 connection cable**

The ModBUS-compatible 5-metre cable connects your appliance to the SmartCoolingHub. If you want to connect several appliances, you need an additional cable for each appliance.



## Research and laboratory appliances – for maximum precision and safety

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Hardly any sector has more stringent requirements for refrigerators and freezers than those of laboratories and research. Liebherr meets them with a specifically developed range and a new generation of appliances.

Sensitive substances are reliably stored at precise temperatures and additionally protected by integrated alarm systems. Maximum efficiency ensures low consumption, while durable materials and maintenance-free components guarantee minimal operating costs. The comprehensive range is user-friendly and easy to connect in a network – such as Liebherr SmartMonitoring.

Discover typical Liebherr quality that will pay off for years and lighten your daily workload.



# The advantages at a glance

## Integrated data memory

The minimum and maximum values can be stored for up to 41 days, and the last three power failures and temperature alarms can be recorded and retrieved.

## Emergency battery

If there is a power failure, the electronics are immediately powered by an integrated 12 V battery. This means the integrated memory can carry on logging the interior temperatures without interruption for another 72 hours.



## External temperature sensor

The laboratory appliances have a feedthrough (7.0 mm diameter) in the ceiling of the appliance for fitting a temperature sensor in the interior.

## Stainless steel workmanship

The smooth interior made of chrome-nickel steel is easy to clean and ensures optimal hygiene.

## Space-saving

To save space and increase the interior capacity, functional components such as fans and evaporators are located outside the refrigerator compartment.

The LKPv 1420, LKPv 1423 and LGPv 1420 models can be taken apart and reassembled for easier transport. This must always be done by a trained technician. Contact Liebherr Sales for more information.



LKPv 6520 MediLine

## Pressure compensation valve

When the door of a refrigerator or freezer is opened and closed, the exchange of air creates a vacuum that makes it difficult to open the door again immediately afterwards. The pressure compensation valve quickly equalises the vacuum so that the door can be easily opened again.

## SmartMonitoring

The cloud-based digital solution continuously monitors and documents temperatures and alerts you immediately via email, text message or phone if any deviations occur.

## Integrated alarm systems

If the door is open for longer than one minute, a visual and audible alarm is generated. The temperature and power failure alarm indicates that the temperature is too high or too low, and also warns in the event of power failures.

## Dynamic cooling system

The dynamic cooling system with double ventilation combined with optimal airflow ensures maximum temperature stability in the interior.



## 90° door arrester

For convenient use, the practical door remains open at 90° and is self-closing at less than 60°.

## Castors

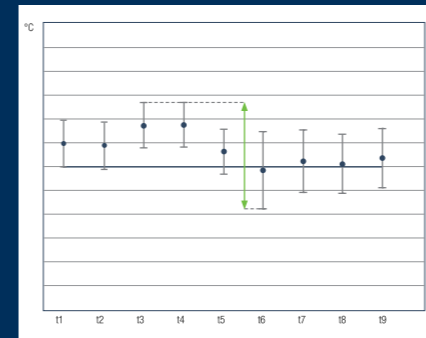
The LKPv and LGPv ranges come with castors as standard to allow versatile use according to the available space, as well as easy cleaning, even under the appliances.



### Split-door appliances

Quick access, minimal loss of cold air, longer-lasting product quality. Split-door appliances are ideal for use in the pharmaceutical industry or laboratories when the door has to be frequently opened. Frequently used samples and preparations can be kept in the upper section for quick access, while there is plenty of room below for items and raw materials that are required less often. Thanks to the split doors with their self-closing mechanism, only a little cold air escapes on opening, and this helps maintain a stable temperature and preserve the quality of the stored items for the long term.

## Quality right down to the smallest detail



### Maximum temperature stability

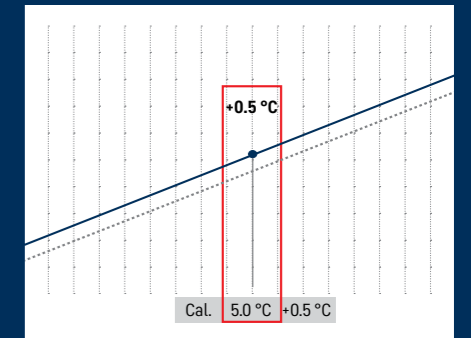
The dynamic cooling system with double ventilation ensures maximum temperature stability in the interior. Very short defrost cycles allow the interior temperature to be kept almost constant during the defrost phases. All the laboratory appliances are designed for temperature stability and consistency according to EN 60068-3.

**Advantage of hot gas defrosting**  
Reduces the time when the temperature is increased

30 min	10 min
Electric defrosting	Hot gas defrosting

### Energy-efficient hot gas defrosting

Timed and on-demand hot gas defrosting allows very short defrosting times. To additionally improve temperature stability during defrosting, the internal temperature is slightly lowered shortly beforehand to create a reserve of cold air.



### Accurate 1-point calibration

The laboratory appliances with electronic controls have a 1-point calibration function for extremely accurate temperature control. This allows compensation between the set temperature and the actual interior temperature. The correction value can be adjusted in increments of 0.1 K.



### Integrated electronics

The intuitive controller with integrated real-time clock allows the temperature to be set to 1/10°C accuracy. The keypad is resistant to dirt and easy to clean – to meet the most stringent hygiene requirements of the laboratory.



### Easily accessible refrigeration components

The refrigeration components are easily accessible, located in the upper part of the machinery compartment to significantly increase the capacity of the interior. The front can be easily lifted up to facilitate cleaning or servicing. When opened by more than 45 ° it can be completely detached.



### External temperature and alarm documentation

The laboratory appliances are equipped with an RS 485 serial interface – which means that up to 20 appliances can be connected via the SmartCoolingHub to a network and the SmartMonitoring system, or used with an external documentation and alarm system. The appliances also have a volt-free contact to relay alarms to an external remote warning system.





**LKPV 1423**  
MediLine

Gross / net capacity	1397 / 980 litre
Exterior dimensions in mm (w / d / h)	1430 / 830 / 2160
Interior dimensions in mm (w / d / h)	1236 / 650 / 1500
Energy consumption in 365 days <sup>1</sup>	820 kWh
Ambient temperature range	+10 °C to +40 °C
Heat output	515 kJ/h
Refrigerant	R 290
Sound power level	58 dB(A)
Voltage / frequency	220 - 240V~ / 50 Hz
Connection rating	4.0 A
Cooling system / Defrost	forced-air / automatic
Temperature range	0 °C to +16 °C
Gradient <sup>2</sup> / max. fluctuation <sup>3</sup>	3.8 °C / 3.9 °C
External cabinet finish	steel / white
Door material	glass door
Internal liner material	Chrome-nickel steel (1.4301 / AISI 304)
Type of control	LED 7-segment display with buttons
Power failure alarm	immediately upon power failure for 72 hrs
Fault: warning signal	visual and audible
Volt-free alarm contact	yes
SmartMonitoring compatible / Connectivity type	yes / SmartCoolingHub
Connectivity solution	retrofittable
Interface	RS485
Interior light	LED ceiling light strip with separate switch
Adjustable shelves	8
Shelf material	wire shelves plastic-coated
Usable shelf area in mm (w / d)	530 / 640
Shelf loading	60 kg
Castors	castors with brake at the front, castors at the rear
Handle	full-length integrated handle
Access ports	1 x Ø 7 mm
Type of lock	mechanical
Door hinges	left hand / right hand
Gross / net weight	267 / 224 kg
Accessories	
Grey grid shelf	7112393
U-shaped trayslide, right	9001761
U-shaped trayslide, left	9001757
Foot pedal opener	9590639
SmartCoolingHub	6125784
Product temperature sensor	9590407
Side-by-Side set in white	9901947

Gross / net capacity	1366 / 980 litre
Exterior dimensions in mm (w / d / h)	1430 / 830 / 2160
Interior dimensions in mm (w / d / h)	1236 / 650 / 1550
Energy consumption in 365 days <sup>1</sup>	714 kWh
Ambient temperature range	+10 °C to +40 °C
Heat output	471 kJ/h
Refrigerant	R 290
Sound power level	58 dB(A)
Voltage / frequency	220 - 240V~ / 50 Hz
Connection rating	4.0 A
Cooling system / Defrost	forced-air / automatic
Temperature range	-2 °C to +16 °C
Gradient <sup>2</sup> / max. fluctuation <sup>3</sup>	3.6 °C / 2.9 °C
External cabinet finish	steel / white
Door material	steel
Internal liner material	Chrome-nickel steel (1.4301 / AISI 304)
Type of control	LED 7-segment display with buttons
Power failure alarm	immediately upon power failure for 72 hrs
Fault: warning signal	visual and audible
Volt-free alarm contact	yes
SmartMonitoring compatible / Connectivity type	yes / SmartCoolingHub
Connectivity solution	retrofittable
Interface	RS485
Interior light	LED ceiling light strip with separate switch
Adjustable shelves	8
Shelf material	wire shelves plastic-coated
Usable shelf area in mm (w / d)	530 / 640
Shelf loading	60 kg
Castors	castors with brake at the front, castors at the rear
Handle	full-length integrated handle
Access ports	1 x Ø 7 mm
Type of lock	mechanical
Door hinges	left hand / right hand
Gross / net weight	249 / 206 kg
Accessories	
Grey grid shelf	7112393
U-shaped trayslide, right	9001761
U-shaped trayslide, left	9001757
Foot pedal opener	9590639
SmartCoolingHub	6125784
Product temperature sensor	9590407
Side-by-Side set in white	9901947



**LKPV 1420**  
MediLine

Gross / net capacity	855 / 629 litre
Exterior dimensions in mm (w / d / h)	790 / 980 / 2160
Interior dimensions in mm (w / d / h)	620 / 850 / 1550
Energy consumption in 365 days <sup>1</sup>	603 kWh
Ambient temperature range	+10 °C to +40 °C
Heat output	430 kJ/h
Refrigerant	R 290
Sound power level	58 dB(A)
Voltage / frequency	220 - 240V~ / 50 Hz
Connection rating	4.0 A
Cooling system / Defrost	forced-air / automatic
Temperature range	-2 °C to +16 °C
Gradient <sup>2</sup> / max. fluctuation <sup>3</sup>	2.1 °C / 1.8 °C
External cabinet finish	steel / white
Door material	steel
Internal liner material	Chrome-nickel steel (1.4301 / AISI 304)
Type of control	LED 7-segment display with buttons
Power failure alarm	immediately upon power failure for 72 hrs
Fault: warning signal	visual and audible
Volt-free alarm contact	yes
SmartMonitoring compatible / Connectivity type	yes / SmartCoolingHub
Connectivity solution	retrofittable
Interface	RS485
Interior light	LED ceiling light strip with separate switch
Adjustable shelves	4
Shelf material	wire shelves plastic-coated
Usable shelf area in mm (w / d)	620 / 800
Shelf loading	60 kg
Castors	castors with brake at the front, fixed castors at the rear
Handle	full-length integrated handle
Access ports	1 x Ø 7 mm
Type of lock	mechanical
Door hinges	right, reversible on site
Gross / net weight	175 / 145 kg
Accessories	
Grey grid shelf	7113643
U-shaped trayslide, right	9005089
U-shaped trayslide, left	9005077
Foot pedal opener	9590659
SmartCoolingHub	6125784
Product temperature sensor	9590407
Side-by-Side set in white	9901947



**LKPV 8420**  
MediLine

Gross / net capacity	617 / 430 litre
Exterior dimensions in mm (w / d / h)	700 / 830 / 2160
Interior dimensions in mm (w / d / h)	533 / 650 / 1500
Energy consumption in 365 days <sup>1</sup>	571 kWh
Ambient temperature range	+10 °C to +40 °C
Heat output	345 kJ/h
Refrigerant	R 290
Sound power level	58 dB(A)
Voltage / frequency	220 - 240V~ / 50 Hz
Connection rating	4.0 A
Cooling system / Defrost	forced-air / automatic
Temperature range	0 °C to +16 °C
Gradient <sup>2</sup> / max. fluctuation <sup>3</sup>	2.0 °C / 1.6 °C
External cabinet finish	steel / white
Door material	glass door
Internal liner material	Chrome-nickel steel (1.4301 / AISI 304)
Type of control	LED 7-segment display with buttons
Power failure alarm	immediately upon power failure for 72 hrs
Fault: warning signal	visual and audible
Volt-free alarm contact	yes
SmartMonitoring compatible / Connectivity type	yes / SmartCoolingHub
Connectivity solution	retrofittable
Interface	RS485
Interior light	LED ceiling light strip with separate switch
Adjustable shelves	4
Shelf material	wire shelves plastic-coated
Usable shelf area in mm (w / d)	530 / 650
Shelf loading	60 kg
Castors	castors with brake at the front, fixed castors at the rear
Handle	full-length integrated handle
Access ports	1 x Ø 7 mm
Type of lock	mechanical
Door hinges	right, reversible on site
Gross / net weight	164 / 138 kg
Accessories	
Grey grid shelf	7112393
U-shaped trayslide, right	9001761
U-shaped trayslide, left	9001757
Foot pedal opener	9590659
SmartCoolingHub	6125784
Product temperature sensor	9590407
Side-by-Side set in white	9901947



**LKPV 6523**  
MediLine

Gross / net capacity	602 / 430 litre
Exterior dimensions in mm (w / d / h)	700 / 830 / 2160
Interior dimensions in mm (w / d / h)	533 / 650 / 1550
Energy consumption in 365 days <sup>1</sup>	497 kWh
Ambient temperature range	+10 °C to +40 °C
Heat output	300 kJ/h
Refrigerant	R 290
Sound power level	58 dB(A)
Voltage / frequency	220 - 240V~ / 50 Hz
Connection rating	4.0 A
Cooling system / Defrost	forced-air / automatic
Temperature range	-2 °C to +16 °C
Gradient <sup>2</sup> / max. fluctuation <sup>3</sup>	1.8 °C / 1.0 °C
External cabinet finish	steel / white
Door material	steel
Internal liner material	Chrome-nickel steel (1.4301 / AISI 304)
Type of control	LED 7-segment display with buttons
Power failure alarm	immediately upon power failure for 72 hrs
Fault: warning signal	visual and audible
Volt-free alarm contact	yes
SmartMonitoring compatible / Connectivity type	yes / SmartCoolingHub
Connectivity solution	retrofittable
Interface	RS485
Interior light	LED ceiling light strip with separate switch
Adjustable shelves	4
Shelf material	wire shelves plastic-coated
Usable shelf area in mm (w / d)	530 / 650
Shelf loading	60 kg
Castors	castors with brake at the front, fixed castors at the rear
Handle	full-length integrated handle
Access ports	1 x Ø 7 mm
Type of lock	mechanical
Door hinges	right, reversible on site
Gross / net weight	154 / 128 kg
Accessories	
Grey grid shelf	7112393
U-shaped trayslide, right	9001761
U-shaped trayslide, left	9001757
Foot pedal opener	9590659
SmartCoolingHub	6125784
Product temperature sensor	9590407
Side-by-Side set in white	9901947



**LKPV 6520**  
MediLine

Gross / net capacity	602 / 430 litre
Exterior dimensions in mm (w / d / h)	700 / 830 / 2160
Interior dimensions in mm (w / d / h)	533 / 650 / 1550
Energy consumption in 365 days <sup>1</sup>	497 kWh
Ambient temperature range	+10 °C to +40 °C
Heat output	300 kJ/h
Refrigerant	R 290
Sound power level	58 dB(A)
Voltage / frequency	220 - 240V~ / 50 Hz
Connection rating	4.0 A
Cooling system / Defrost	forced-air / automatic
Temperature range	-2 °C to +16 °C
Gradient <sup>2</sup> / max. fluctuation <sup>3</sup>	1.8 °C / 1.0 °C
External cabinet finish	steel / white
Door material	steel
Internal liner material	Chrome-nickel steel (1.4301 / AISI 304)
Type of control	LED 7-segment display with buttons
Power failure alarm	immediately upon power failure for 72 hrs
Fault: warning signal	visual and audible
Volt-free alarm contact	yes
SmartMonitoring compatible / Connectivity type	yes / SmartCoolingHub
Connectivity solution	retrofittable
Interface	RS485
Interior light	LED ceiling light strip with separate switch
Adjustable shelves	4
Shelf material	wire shelves plastic-coated
Usable shelf area in mm (w / d)	530 / 650
Shelf loading	60 kg
Castors	castors with brake at the front, fixed castors at the rear
Handle	full-length integrated handle
Access ports	1 x Ø 7 mm
Type of lock	mechanical
Door hinges	right, reversible on site
Gross / net weight	154 / 128 kg
Accessories	
Grey grid shelf	7112393
U-shaped trayslide, right	9001761
U-shaped trayslide, left	9001757
Foot pedal opener	9590659
SmartCoolingHub	6125784
Product temperature sensor	9590407
Side-by-Side set in white	9901947

<sup>1</sup> Measured at +25°C ambient temperature and +5°C set temperature for fridges and -20°C for freezers.  
<sup>2</sup> Gradient as defined in EN 60068-3: the difference between the warmest and coldest average measurements, increased by their expanded uncertainty, throughout the duration.  
<sup>3</sup> Max. fluctuation as per EN 60068-3: greatest fluctuation value determined throughout the duration of measurements.



### LGPv 1420

MediLine

Gross / net capacity	1366 / 980 litre
Exterior dimensions in mm (w / d / h)	1430 / 830 / 2160
Interior dimensions in mm (w / d / h)	1236 / 650 / 1550
Energy consumption in 365 days <sup>1</sup>	2654 kWh
Ambient temperature range	+10 °C to +40 °C
Heat output	1984 kJ/h
Refrigerant	R 290
Sound power level	60 dB(A)
Voltage / frequency	220 - 240V~ / 50 Hz
Connection rating	4.0 A
Cooling system / Defrost	forced-air / automatic
Temperature range	-9 °C to -26 °C
Gradient <sup>3</sup> / max. fluctuation <sup>4</sup>	4.3 °C / 6.7 °C
External cabinet finish	steel / white
Door material	steel
Internal liner material	Chrome-nickel steel (1.4301 / AISI 304)
Type of control	LED 7-segment display with buttons
Power failure alarm	immediately upon power failure for 72 hrs
Fault: warning signal	visual and audible
Volt-free alarm contact	yes
SmartMonitoring compatible	yes
Connectivity type	SmartCoolingHub
Connectivity solution	retrofittable
Interface	RS485
Adjustable shelves	8
Shelf material	wire shelves plastic-coated
Usable shelf area in mm (w / d)	530 / 640
Shelf loading	60 kg
Castors	castors with brake at the front, castors at the rear
Handle	full-length integrated handle
Access ports	1 x Ø 7 mm
Type of lock	mechanical
Door hinges	left hand / right hand
Gross / net weight	254 / 209 kg
Accessories	
Grey grid shelf	7112393
U-shaped trayslide, right	9001761
U-shaped trayslide, left	9001757
Foot pedal opener	9590639
SmartCoolingHub	6125784
Product temperature sensor	9590407
Side-by-Side set in white	9901947



### LGPv 8420

MediLine

Gross / net capacity	855 / 629 litre
Exterior dimensions in mm (w / d / h)	790 / 980 / 2160
Interior dimensions in mm (w / d / h)	620 / 850 / 1550
Energy consumption in 365 days <sup>1</sup>	1739 kWh
Ambient temperature range	+10 °C to +40 °C
Heat output	1875 kJ/h
Refrigerant	R 290
Sound power level	60 dB(A)
Voltage / frequency	220 - 240V~ / 50 Hz
Connection rating	4.0 A
Cooling system / Defrost	forced-air / automatic
Temperature range	-9 °C to -35 °C <sup>2</sup>
Gradient <sup>3</sup> / max. fluctuation <sup>4</sup>	4.5 °C / 5.7 °C
External cabinet finish	steel / white
Door material	steel
Internal liner material	Chrome-nickel steel (1.4301 / AISI 304)
Type of control	LED 7-segment display with buttons
Power failure alarm	immediately upon power failure for 72 hrs
Fault: warning signal	visual and audible
Volt-free alarm contact	yes
SmartMonitoring compatible	yes
Connectivity type	SmartCoolingHub
Connectivity solution	retrofittable
Interface	RS485
Adjustable shelves	4
Shelf material	wire shelves plastic-coated
Usable shelf area in mm (w / d)	620 / 800
Shelf loading	60 kg
Castors	castors with brake at the front, fixed castors at the rear
Handle	full-length integrated handle
Access ports	1 x Ø 7 mm
Type of lock	mechanical
Door hinges	right, reversible on site
Gross / net weight	182 / 150 kg
Accessories	
Grey grid shelf	7113643
U-shaped trayslide, right	9005089
U-shaped trayslide, left	9005077
Foot pedal opener	9590659
SmartCoolingHub	6125784
Product temperature sensor	9590407
Side-by-Side set in white	9901947

<sup>1</sup> Measured at +25°C ambient temperature and +5°C set temperature for fridges and -20°C for freezers.  
<sup>2</sup> The temperature range is valid at a maximum ambient temperature of +30°C  
<sup>3</sup> Gradient as defined in EN 60068-3: the difference between the warmest and coldest average measurements, increased by their expanded uncertainty, throughout the duration.  
<sup>4</sup> Max. fluctuation as per EN 60068-3: greatest fluctuation value determined throughout the duration of measurements.





## The new generation of appliances for laboratories and research – safety redefined

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Constant temperatures are essential when storing sensitive substances. This especially applies to work in laboratories, where even the slightest deviations can jeopardise the quality of research results. This is why Liebherr has developed new refrigerators and freezers specifically for this sector, combining maximum refrigeration performance with optimum temperature stability. Innovative safety features with monitoring and alarm functions offer all-round protection from all kinds of incident and malfunction.

The next generation of appliances also set new standards in terms of energy efficiency and total cost of ownership. On the next few pages we present the latest results of research and development by the refrigeration specialists at Liebherr and show how they can benefit safety in your laboratory.

# The advantages at a glance

## Min./max. temperature log

The min./max. temperature log stores the minimum and maximum interior temperatures and shows on the display whether the storage temperatures were within the tolerance limits.

## +2 °C SafetyDevice

If the temperature falls below +2 °C due to a malfunction, the SafetyDevice takes control, stabilising the temperature, activating the alarm and protecting the contents from freezing.

## Power failure alarm

If a malfunction occurs, an integrated battery provides a visual and audible alarm and takes over the power supply. As soon as the power is restored, the time of failure and the maximum temperature reached are displayed.

## LightAlarm

In the event of an uncontrolled temperature rise or other problems, the interior light of the appliance starts flashing. This visually shows when action is needed.

## Feedthrough for external sensors

An integrated opening allows a separate sensor to be connected for additional temperature monitoring without having to drill holes or break the door seal.

## Integrated data logger

The integrated logger records the temperature profile, alarm history and service information for up to five years. The data can be read out directly from the appliance via the USB interface.



SRFvh 4011 Perfection

The equipment details shown depend on the model; the description for the respective model applies.



## Mechanical lock

Liebherr professional appliances are equipped with a mechanical lock and two keys. This ensures that unauthorised persons cannot access your valuable and sensitive stored goods.

## SmartMonitoring

The cloud-based digital solution continuously monitors and documents temperatures and alerts you immediately via email, text message or phone if any deviations occur.

## Integrated WiFi/LAN interface

The integrated WiFi/LAN interface enables you to easily connect your appliances with Liebherr SmartMonitoring or existing local systems.

## Easy-to-clean interior

The inner liner made of fully recyclable, robust and odourless polystyrene is manufactured in one piece without joints. This makes it quick and easy to clean the large, rounded corners.



## Replaceable door seal

Save time and money: the insertable Liebherr door seals are easy to change. If a seal is damaged, you can replace it yourself without any tools. Contact Liebherr Customer Service to purchase replacements.



## Self-closing door < 90°

To make loading, unloading and cleaning easier, the appliance door stays open if opened by more than 90°. If the opening angle is less than 90°, it closes automatically for safety.



## Quality right down to the smallest detail

Research and laboratory



### Antimicrobial handle with opening mechanism

A benefit for users but a bane for germs: The easy-turn handle mechanism makes opening the door effortless. It contains special antimicrobial substances that reduce bacteria by up to 99.99%. Regular and time-consuming disinfection is not necessary. This means the appliance is extremely safe even if many people have access to it. \*According to ISO 22196:2011



### Grid shelf with pull-out stop

Corrosion-free grid shelves made of coated steel guarantee a secure hold, constant air circulation and good temperature stability. A pull-out stop prevents them from accidentally sliding out.



### Ultra-efficient

Energy-efficient refrigerators and freezers help with ever increasing electricity prices. Liebherr fully utilises the savings potential of every component – from the compressor to the seal, to the lighting and electronics. The ultra-efficient appliances in the Perfection series for example demonstrates how this has a positive effect on your overall operating costs.



### ±3 °C temperature stability

Temperature fluctuations must be minimal to ensure that the quality of sensitive substances is preserved. Liebherr Laboratory refrigerators have an impressive maximum deviation of just ±3 °C from the set temperature. This not only maintains the storage climate, but also the value of your stored goods.



### DIN 13277 compliance

Laboratory and pharmacy refrigerators from Liebherr meet all the necessary equipment and performance criteria to fully comply with DIN 13277. DIN 13277 defines the requirements and test specifications for refrigerators and freezers used in laboratories and for storing medicinal products.



### IEC 61010-2-011

Liebherr refrigerators and freezers specially developed for storing temperature-sensitive products are CE safety-compliant. This ensures that all mechanical and electrical requirements for injury-free operation are met – and that you and your team are always safe.

### Vertical LED lighting

Vertical LED lighting provides optimal illumination of the interior over the entire height of the appliance. Thanks to the perfect overview on all levels, the required substance is immediately at hand, the door can be quickly closed again, and the interior temperature remains stable. This saves you time looking for things – and above all energy costs.



**SRFvh 5511**  
Perfection

<b>Gross / net capacity</b>	588 / 440 litre
<b>Exterior dimensions in mm (w / d / h)</b>	747 / 769 / 1793
<b>Interior dimensions in mm (w / d / h)</b>	606 / 536 / 1460
<b>Energy consumption in 365 days<sup>1</sup></b>	360 kWh
<b>Ambient temperature range</b>	+10°C to +35°C
<b>Heat output</b>	475 kJ/h
<b>Refrigerant</b>	R 600a
<b>Sound power level</b>	49 dB(A)
<b>Voltage / frequency</b>	220 - 240V~ / 50 Hz
<b>Connection rating / Rated consumption watts</b>	2.0 A / 190 W
<b>Cooling system / Defrost</b>	forced-air / automatic
<b>Temperature range</b>	+3°C to +16°C
<b>Gradient<sup>2</sup> / max. fluctuation<sup>3</sup></b>	3.3°C / 2.0°C
<b>External cabinet finish</b>	steel / white
<b>Door material</b>	glass
<b>Internal liner material</b>	commercial grade moulded polystyrol
<b>Type of control</b>	2.4" touch & swipe colour display
<b>Power failure alarm</b>	immediately upon power failure for at least 12 hrs
<b>Fault: warning signal</b>	visual and audible
<b>Volt-free alarm contact</b>	yes
<b>SmartMonitoring compatible / Connectivity type</b>	yes / SmartModule
<b>Connectivity solution / Interface</b>	integrated, removable / WiFi/LAN
<b>Data logger</b>	integrated, USB interface
<b>Interior light</b>	vertical LED light strip recessed in left wall with separate switch
<b>Adjustable shelves / Shelf material</b>	5 / wire shelves plastic-coated
<b>Usable shelf area in mm (w / d)</b>	600 / 536
<b>Shelf loading / Maximum total load</b>	60 kg / 300 kg
<b>Castors</b>	castors with brake at the front, fixed castors at the rear
<b>Handle</b>	antimicrobial handle with opening mechanism
<b>Access ports</b>	1 x Ø 10 mm
<b>DIN 13277</b>	yes
<b>Type of lock / Door hinges</b>	mechanical / right, reversible on site
<b>Gross / net weight</b>	111 / 98 kg
<b>Accessories</b>	
<b>White grid shelf</b>	7113310
<b>White base grid</b>	7113314
<b>Glass shelf</b>	9291929
<b>Scanner rail</b>	7435210
<b>Castors Ø 80 mm</b>	9086926
<b>Adjustable feet, 90 - 120 mm / 150 - 180 mm</b>	9080022 / 9086924
<b>Additional lock barrels (up to 5)</b>	on request
<b>Side-by-Side set in white</b>	9017739



**SRFvh 5501**  
Perfection

<b>Gross / net capacity</b>	558 / 441 litre
<b>Exterior dimensions in mm (w / d / h)</b>	747 / 769 / 1793
<b>Interior dimensions in mm (w / d / h)</b>	606 / 536 / 1460
<b>Energy consumption in 365 days<sup>1</sup></b>	171 kWh
<b>Ambient temperature range</b>	+10°C to +35°C
<b>Heat output</b>	246 kJ/h
<b>Refrigerant</b>	R 600a
<b>Sound power level</b>	49 dB(A)
<b>Voltage / frequency</b>	220 - 240V~ / 50 Hz
<b>Connection rating / Rated consumption watts</b>	2.0 A / 190 W
<b>Cooling system / Defrost</b>	forced-air / automatic
<b>Temperature range</b>	+3°C to +16°C
<b>Gradient<sup>2</sup> / max. fluctuation<sup>3</sup></b>	2.2°C / 1.7°C
<b>External cabinet finish</b>	steel / white
<b>Door material</b>	steel
<b>Internal liner material</b>	commercial grade moulded polystyrol
<b>Type of control</b>	2.4" touch & swipe colour display
<b>Power failure alarm</b>	immediately upon power failure for at least 12 hrs
<b>Fault: warning signal</b>	visual and audible
<b>Volt-free alarm contact</b>	yes
<b>SmartMonitoring compatible / Connectivity type</b>	yes / SmartModule
<b>Connectivity solution / Interface</b>	integrated, removable / WiFi/LAN
<b>Data logger</b>	integrated, USB interface
<b>Interior light</b>	LED lighting column, left
<b>Adjustable shelves / Shelf material</b>	5 / wire shelves plastic-coated
<b>Usable shelf area in mm (w / d)</b>	600 / 536
<b>Shelf loading / Maximum total load</b>	60 kg / 300 kg
<b>Castors</b>	castors with brake at the front, fixed castors at the rear
<b>Handle</b>	antimicrobial handle with opening mechanism
<b>Access ports</b>	1 x Ø 10 mm
<b>DIN 13277</b>	yes
<b>Type of lock / Door hinges</b>	mechanical / right, reversible on site
<b>Gross / net weight</b>	94 / 80 kg
<b>Accessories</b>	
<b>White grid shelf</b>	7113310
<b>White base grid</b>	7113314
<b>Glass shelf</b>	9291929
<b>Scanner rail</b>	7435210
<b>Castors Ø 80 mm</b>	9086926
<b>Adjustable feet, 90 - 120 mm / 150 - 180 mm</b>	9080022 / 9086924
<b>Additional lock barrels (up to 5)</b>	on request
<b>Side-by-Side set in white</b>	9017739



**SRFvh 4011**  
Perfection

<b>Gross / net capacity</b>	420 / 297 litre
<b>Exterior dimensions in mm (w / d / h)</b>	597 / 654 / 1884
<b>Interior dimensions in mm (w / d / h)</b>	460 / 423 / 1660
<b>Energy consumption in 365 days<sup>1</sup></b>	389 kWh
<b>Ambient temperature range</b>	+10°C to +35°C
<b>Heat output</b>	463 kJ/h
<b>Refrigerant</b>	R 600a
<b>Sound power level</b>	49 dB(A)
<b>Voltage / frequency</b>	220 - 240V~ / 50 Hz
<b>Connection rating / Rated consumption watts</b>	2.0 A / 180 W
<b>Cooling system / Defrost</b>	forced-air / automatic
<b>Temperature range</b>	+3°C to +16°C
<b>Gradient<sup>2</sup> / max. fluctuation<sup>3</sup></b>	3.0°C / 2.4°C
<b>External cabinet finish</b>	steel / white
<b>Door material</b>	glass
<b>Internal liner material</b>	commercial grade moulded polystyrol
<b>Type of control</b>	2.4" touch & swipe colour display
<b>Power failure alarm</b>	immediately upon power failure for at least 12 hrs
<b>Fault: warning signal</b>	visual and audible
<b>Volt-free alarm contact</b>	yes
<b>SmartMonitoring compatible / Connectivity type</b>	yes / SmartModule
<b>Connectivity solution / Interface</b>	integrated, removable / WiFi/LAN
<b>Data logger</b>	integrated, USB interface
<b>Interior light</b>	vertical LED light strip recessed in left wall with separate switch
<b>Adjustable shelves / Shelf material</b>	5 / wire shelves plastic-coated
<b>Usable shelf area in mm (w / d)</b>	460 / 423
<b>Shelf loading / Maximum total load</b>	45 kg / 225 kg
<b>Handle</b>	antimicrobial handle with opening mechanism
<b>Access ports</b>	1 x Ø 10 mm
<b>DIN 13277</b>	yes
<b>Type of lock / Door hinges</b>	mechanical / right, reversible on site
<b>Gross / net weight</b>	87 / 80 kg
<b>Accessories</b>	
<b>White grid shelf</b>	7113308
<b>White base grid</b>	7113312
<b>Glass shelf</b>	9293493
<b>Perforated metal shelf, white</b>	9029022
<b>Scanner rail</b>	7435208
<b>Castors Ø 80 mm / Ø 100 mm</b>	
<b>Adjustable feet, 90 - 120 mm / 150 - 180 mm</b>	9080022 / 9086924
<b>Additional lock barrels (up to 5)</b>	on request
<b>Side-by-Side set in white</b>	9006786



**SRFvh 4001**  
Perfection

<b>Gross / net capacity</b>	394 / 298 litre
<b>Exterior dimensions in mm (w / d / h)</b>	597 / 654 / 1884
<b>Interior dimensions in mm (w / d / h)</b>	460 / 423 / 1660
<b>Energy consumption in 365 days<sup>1</sup></b>	172 kWh
<b>Ambient temperature range</b>	+10°C to +35°C
<b>Heat output</b>	250 kJ/h
<b>Refrigerant</b>	R 600a
<b>Sound power level</b>	49 dB(A)
<b>Voltage / frequency</b>	220 - 240V~ / 50 Hz
<b>Connection rating / Rated consumption watts</b>	2.0 A / 180 W
<b>Cooling system / Defrost</b>	forced-air / automatic
<b>Temperature range</b>	+3°C to +16°C
<b>Gradient<sup>2</sup> / max. fluctuation<sup>3</sup></b>	2.4°C / 2.2°C
<b>External cabinet finish</b>	steel / white
<b>Door material</b>	steel
<b>Internal liner material</b>	commercial grade moulded polystyrol
<b>Type of control</b>	2.4" touch & swipe colour display
<b>Power failure alarm</b>	immediately upon power failure for at least 12 hrs
<b>Fault: warning signal</b>	visual and audible
<b>Volt-free alarm contact</b>	yes
<b>SmartMonitoring compatible / Connectivity type</b>	yes / SmartModule
<b>Connectivity solution / Interface</b>	integrated, removable / WiFi/LAN
<b>Data logger</b>	integrated, USB interface
<b>Interior light</b>	LED lighting column, left
<b>Adjustable shelves / Shelf material</b>	5 / wire shelves plastic-coated
<b>Usable shelf area in mm (w / d)</b>	460 / 423
<b>Shelf loading / Maximum total load</b>	45 kg / 225 kg
<b>Handle</b>	antimicrobial handle with opening mechanism
<b>Access ports</b>	1 x Ø 10 mm
<b>DIN 13277</b>	yes
<b>Type of lock / Door hinges</b>	mechanical / right, reversible on site
<b>Gross / net weight</b>	71 / 65 kg
<b>Accessories</b>	
<b>White grid shelf</b>	7113308
<b>White base grid</b>	7113312
<b>Glass shelf</b>	9293493
<b>Perforated metal shelf, white</b>	9029022
<b>Scanner rail</b>	7435208
<b>Castors Ø 80 mm / Ø 100 mm</b>	9086926 / 9080023
<b>Adjustable feet, 90 - 120 mm / 150 - 180 mm</b>	9080022 / 9086924
<b>Additional lock barrels (up to 5)</b>	on request
<b>Side-by-Side set in white</b>	9006786

<sup>1</sup> Measured at +25°C ambient temperature and +5°C set temperature for fridges and -20°C for freezers.  
<sup>2</sup> Gradient as defined in EN 60068-3: the difference between the warmest and coldest average measurements, increased by their expanded uncertainty, throughout the duration.  
<sup>3</sup> Max. fluctuation as per EN 60068-3: greatest fluctuation value determined throughout the duration of measurements.





### SRFvg 5501

Performance

Gross / net capacity	558 / 441 litre
Exterior dimensions in mm (w / d / h)	747 / 769 / 1684
Interior dimensions in mm (w / d / h)	606 / 536 / 1460
Energy consumption in 365 days <sup>1</sup>	250 kWh
Ambient temperature range	+10 °C to +35 °C
Heat output	317 kJ/h
Refrigerant	R 600a
Sound power level	49 dB(A)
Voltage / frequency	220 - 240V~ / 50 Hz
Connection rating / Rated consumption watts	2.0 A / 140 W
Cooling system / Defrost	forced-air / automatic
Temperature range	+3 °C to +16 °C
Gradient <sup>2</sup> / max. fluctuation <sup>3</sup>	3.9 °C / 3.0 °C
External cabinet finish	steel / white
Door material	steel
Internal liner material	commercial grade moulded polystyrol
Type of control	monochrome display, touch buttons
Power failure alarm	when mains power return
Fault: warning signal	visual and audible
Volt-free alarm contact	yes
SmartMonitoring compatible / Connectivity type	yes / SmartModule
Connectivity solution / Interface	retrofitable / WiFi/LAN (optional)
Interior light	
Adjustable shelves / Shelf material	5 / wire shelves plastic-coated
Usable shelf area in mm (w / d)	600 / 536
Shelf loading / Maximum total load	60 kg / 300 kg
Handle	antimicrobial handle with opening mechanism
	1 x Ø 10 mm
Access ports	mechanical
Type of lock	right, reversible on site
Door hinges	86 / 80 kg
Gross / net weight	
Accessories	7113310
White grid shelf	7113314 / 9291929
White base grid / Glass shelf	
Perforated metal shelf, white	7435210
Scanner rail	9086926 / 9080023
Castors Ø 80 mm / Ø 100 mm	9080022 / 9086924
Adjustable feet, 90 - 120 mm / 150 - 180 mm	9803590
Evaporator cover	on request
Additional lock barrels (up to 5)	9017739
Side-by-Side set in white	6145269
SmartModule	



### SRFvg 4011

Performance

Gross / net capacity	420 / 297 litre
Exterior dimensions in mm (w / d / h)	597 / 654 / 1884
Interior dimensions in mm (w / d / h)	460 / 423 / 1642
Energy consumption in 365 days <sup>1</sup>	431 kWh
Ambient temperature range	+10 °C to +35 °C
Heat output	542 kJ/h
Refrigerant	R 600a
Sound power level	49 dB(A)
Voltage / frequency	220 - 240V~ / 50 Hz
Connection rating / Rated consumption watts	2.0 A / 135 W
Cooling system / Defrost	forced-air / automatic
Temperature range	+3 °C to +16 °C
Gradient <sup>2</sup> / max. fluctuation <sup>3</sup>	5.4 °C / 3.4 °C
External cabinet finish	steel / white
Door material	glass
Internal liner material	commercial grade moulded polystyrol
Type of control	monochrome display, touch buttons
Power failure alarm	when mains power return
Fault: warning signal	visual and audible
Volt-free alarm contact	yes
SmartMonitoring compatible / Connectivity type	yes / SmartModule
Connectivity solution / Interface	retrofitable / WiFi/LAN (optional)
Interior light	LED ceiling light strip with separate switch
Adjustable shelves / Shelf material	5 / wire shelves plastic-coated
Usable shelf area in mm (w / d)	460 / 423
Shelf loading / Maximum total load	45 kg / 225 kg
Handle	antimicrobial handle with opening mechanism
	1 x Ø 10 mm
Access ports	mechanical
Type of lock	right, reversible on site
Door hinges	88 / 82 kg
Gross / net weight	
Accessories	7113308
White grid shelf	7113312 / 9293493
White base grid / Glass shelf	9029022
Perforated metal shelf, white	7435208
Scanner rail	
Castors Ø 80 mm / Ø 100 mm	9080022 / 9086924
Adjustable feet, 90 - 120 mm / 150 - 180 mm	
Evaporator cover	on request
Additional lock barrels (up to 5)	9006786
Side-by-Side set in white	6145269
SmartModule	



### SRFvg 4001

Performance

Gross / net capacity	394 / 298 litre
Exterior dimensions in mm (w / d / h)	597 / 654 / 1884
Interior dimensions in mm (w / d / h)	460 / 423 / 1660
Energy consumption in 365 days <sup>1</sup>	245 kWh
Ambient temperature range	+10 °C to +35 °C
Heat output	321 kJ/h
Refrigerant	R 600a
Sound power level	49 dB(A)
Voltage / frequency	220 - 240V~ / 50 Hz
Connection rating / Rated consumption watts	2.0 A / 140 W
Cooling system / Defrost	forced-air / automatic
Temperature range	+3 °C to +16 °C
Gradient <sup>2</sup> / max. fluctuation <sup>3</sup>	4.6 °C / 2.2 °C
External cabinet finish	steel / white
Door material	steel
Internal liner material	commercial grade moulded polystyrol
Type of control	monochrome display, touch buttons
Power failure alarm	when mains power return
Fault: warning signal	visual and audible
Volt-free alarm contact	yes
SmartMonitoring compatible / Connectivity type	yes / SmartModule
Connectivity solution / Interface	retrofitable / WiFi/LAN (optional)
Interior light	
Adjustable shelves / Shelf material	5 / wire shelves plastic-coated
Usable shelf area in mm (w / d)	460 / 423
Shelf loading / Maximum total load	45 kg / 225 kg
Handle	antimicrobial handle with opening mechanism
	1 x Ø 10 mm
Access ports	mechanical
Type of lock	right, reversible on site
Door hinges	70 / 64 kg
Gross / net weight	
Accessories	7113308
White grid shelf	7113312 / 9293493
White base grid / Glass shelf	9029022
Perforated metal shelf, white	7435208
Scanner rail	9086926 / 9080023
Castors Ø 80 mm / Ø 100 mm	9080022 / 9086924
Adjustable feet, 90 - 120 mm / 150 - 180 mm	9803588
Evaporator cover	on request
Additional lock barrels (up to 5)	9017739
Side-by-Side set in white	6145269
SmartModule	



### SRFvg 3511

Performance

Gross / net capacity	367 / 260 litre
Exterior dimensions in mm (w / d / h)	597 / 654 / 1684
Interior dimensions in mm (w / d / h)	460 / 423 / 1442
Energy consumption in 365 days <sup>1</sup>	393 kWh
Ambient temperature range	+10 °C to +35 °C
Heat output	471 kJ/h
Refrigerant	R 600a
Sound power level	48 dB(A)
Voltage / frequency	220 - 240V~ / 50 Hz
Connection rating / Rated consumption watts	2.0 A / 135 W
Cooling system / Defrost	forced-air / automatic
Temperature range	+3 °C to +16 °C
Gradient <sup>2</sup> / max. fluctuation <sup>3</sup>	3.6 °C / 3.2 °C
External cabinet finish	steel / white
Door material	glass
Internal liner material	commercial grade moulded polystyrol
Type of control	monochrome display, touch buttons
Power failure alarm	when mains power return
Fault: warning signal	visual and audible
Volt-free alarm contact	yes
SmartMonitoring compatible / Connectivity type	yes / SmartModule
Connectivity solution / Interface	retrofitable / WiFi/LAN (optional)
Interior light	LED ceiling light strip with separate switch
Adjustable shelves / Shelf material	4 / wire shelves plastic-coated
Usable shelf area in mm (w / d)	460 / 423
Shelf loading / Maximum total load	45 kg / 180 kg
Handle	antimicrobial handle with opening mechanism
	1 x Ø 10 mm
Access ports	mechanical
Type of lock	right, reversible on site
Door hinges	81 / 76 kg
Gross / net weight	
Accessories	7113308
White grid shelf	7113312 / 9293493
White base grid / Glass shelf	9029022
Perforated metal shelf, white	7435208
Scanner rail	9086926 / 9080023
Castors Ø 80 mm / Ø 100 mm	9080022 / 9086924
Adjustable feet, 90 - 120 mm / 150 - 180 mm	
Evaporator cover	on request
Additional lock barrels (up to 5)	9017739
Side-by-Side set in white	6145269
SmartModule	



### SRFvg 3501

Performance

Gross / net capacity	344 / 261 litre
Exterior dimensions in mm (w / d / h)	597 / 654 / 1684
Interior dimensions in mm (w / d / h)	460 / 423 / 1460
Energy consumption in 365 days <sup>1</sup>	226 kWh
Ambient temperature range	+10 °C to +35 °C
Heat output	288 kJ/h
Refrigerant	R 600a
Sound power level	48 dB(A)
Voltage / frequency	220 - 240V~ / 50 Hz
Connection rating / Rated consumption watts	2.0 A / 120 W
Cooling system / Defrost	forced-air / automatic
Temperature range	+3 °C to +16 °C
Gradient <sup>2</sup> / max. fluctuation <sup>3</sup>	5.0 °C / 3.1 °C
External cabinet finish	steel / white
Door material	steel
Internal liner material	commercial grade moulded polystyrol
Type of control	monochrome display, touch buttons
Power failure alarm	when mains power return
Fault: warning signal	visual and audible
Volt-free alarm contact	yes
SmartMonitoring compatible / Connectivity type	yes / SmartModule
Connectivity solution / Interface	retrofitable / WiFi/LAN (optional)
Interior light	
Adjustable shelves / Shelf material	4 / wire shelves plastic-coated
Usable shelf area in mm (w / d)	460 / 423
Shelf loading / Maximum total load	45 kg / 180 kg
Handle	antimicrobial handle with opening mechanism
	1 x Ø 10 mm
Access ports	mechanical
Type of lock	right, reversible on site
Door hinges	64 / 60 kg
Gross / net weight	
Accessories	7113308
White grid shelf	7113312 / 9293493
White base grid / Glass shelf	9029022
Perforated metal shelf, white	7435208
Scanner rail	9086926 / 9080023
Castors Ø 80 mm / Ø 100 mm	9080022 / 9086924
Adjustable feet, 90 - 120 mm / 150 - 180 mm	9803586
Evaporator cover	on request
Additional lock barrels (up to 5)	9017739
Side-by-Side set in white	6145269
SmartModule	

<sup>1</sup> Measured at +25°C ambient temperature and +5°C set temperature for fridges and -20°C for freezers.  
<sup>2</sup> Gradient as defined in EN 60068-3: the difference between the warmest and coldest average measurements, increased by their expanded uncertainty, throughout the duration.  
<sup>3</sup> Max. fluctuation as per EN 60068-3: greatest fluctuation value determined throughout the duration of measurements.

# Quality right down to the smallest detail



### LED front lighting

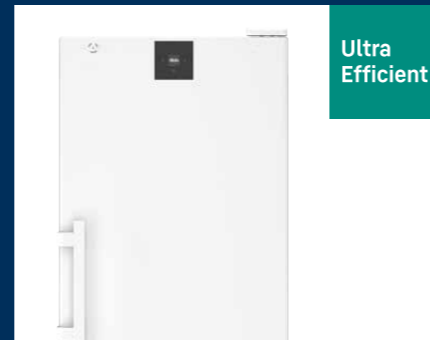
The LED front lighting provides optimal illumination of the drawers even in dark environments. Thanks to the perfect overview, the desired substance is immediately at hand, the door can be quickly closed again, and the interior temperature remains stable. For low consumption and lower energy costs.



No Frost

### NoFrost technology

Liebherr professional laboratory appliances no longer need manual defrosting. Any moisture that occurs is bound by the fan-assisted cooling, and when necessary, defrosting phases remove any remaining moisture particles from of the interior – for convenient, safe, and ice-free storage.



Ultra Efficient

### Ultra-efficient

Energy-efficient refrigerators and freezers help with ever increasing electricity prices. Liebherr fully utilises the savings potential of every component – from the compressor to the seal, to the lighting and electronics. The ultra-efficient appliances in the Perfection series for example demonstrates how this has a positive effect on your overall operating costs.



### ±5 °C temperature stability

Sensitive substances cannot be subjected to large deviations from the set storage temperature. Liebherr freezers guarantee a temperature fluctuation of no more than ±5 °C, so that the valuable goods you store in them are optimally protected and their quality is preserved.



### DIN 13277 compliance

Laboratory and pharmacy refrigerators from Liebherr meet all the necessary equipment and performance criteria to fully comply with DIN 13277. DIN 13277 defines the requirements and test specifications for refrigerators and freezers used in laboratories and for storing medicinal products.



### IEC 61010-2-011

Liebherr refrigerators and freezers specially developed for storing temperature-sensitive products are CE safety-compliant. This ensures that all mechanical and electrical requirements for injury-free operation are met – and that you and your team are always safe.



### SFFvh 5501

Perfection

Gross / net capacity	472 / 257 litre
Exterior dimensions in mm (w / d / h)	747 / 769 / 1793
Interior dimensions in mm (w / d / h)	603 / 510 / 1118
Energy consumption in 365 days <sup>1</sup>	540 kWh
Ambient temperature range	+10 °C to +35 °C
Heat output	725 kJ/h
Refrigerant	R 290
Sound power level	55 dB(A)
Voltage / frequency	220 – 240V~ / 50 Hz
Connection rating / Rated consumption watts	2.0 A / 250 W
Cooling system / Defrost	forced-air / automatic
Temperature range	-9 °C to -35 °C <sup>2</sup>
Gradient <sup>3</sup> / max. fluctuation <sup>4</sup>	5.5 °C / 4.4 °C
External cabinet finish	steel / white
Door material	steel
Internal liner material	commercial grade moulded polystyrol
Type of control	2.4" touch & swipe colour display
Power failure alarm	immediately upon power failure for at least 12 hrs
Fault: warning signal	visual and audible
Volt-free alarm contact	yes
SmartMonitoring compatible / Connectivity type	yes / SmartModule
Connectivity solution / Interface	integrated, removable / WiFi/LAN
Data logger	integrated, USB interface
Interior light	LED
Adjustable shelves / Shelf material	4 / wire shelves plastic-coated
Usable shelf area in mm (w / d)	600 / 510
Shelf loading / Maximum total load	60 kg / 300 kg
Castors	castors with brake at the front, fixed castors at the rear
Drawers / Number of baskets included	6 / 2
Handle	antimicrobial handle with opening mechanism
Access ports	1 x Ø 10 mm
DIN 13277	yes
Type of lock / Door hinges	mechanical / right, reversible on site
Gross / net weight	113 / 104 kg
Accessories	
White grid shelf	7112590
White base grid	
Standard full-depth basket	9141791
Castors Ø 80 mm / Ø 100 mm	9086926 / -
Adjustable feet, 90 – 120 mm / 150 – 180 mm	9080022 / 9086924
Additional lock barrels (up to 5)	on request
Side-by-Side set in white	9017739
Product sensor (PT 1000)	6942678



### SFFvh 4001

Perfection

Gross / net capacity	273 / 174 litre
Exterior dimensions in mm (w / d / h)	597 / 654 / 1884
Interior dimensions in mm (w / d / h)	420 / 400 / 1400
Energy consumption in 365 days <sup>1</sup>	292 kWh
Ambient temperature range	+10 °C to +35 °C
Heat output	479 kJ/h
Refrigerant	R 600a
Sound power level	46 dB(A)
Voltage / frequency	220 – 240V~ / 50 Hz
Connection rating / Rated consumption watts	2.0 A / 230 W
Cooling system / Defrost	forced-air / automatic
Temperature range	-9 °C to -35 °C <sup>2</sup>
Gradient <sup>3</sup> / max. fluctuation <sup>4</sup>	6.9 °C / 6.4 °C
External cabinet finish	steel / white
Door material	steel
Internal liner material	commercial grade moulded polystyrol
Type of control	2.4" touch & swipe colour display
Power failure alarm	immediately upon power failure for at least 12 hrs
Fault: warning signal	visual and audible
Volt-free alarm contact	yes
SmartMonitoring compatible / Connectivity type	yes / SmartModule
Connectivity solution / Interface	integrated, removable / WiFi/LAN
Data logger	integrated, USB interface
Interior light	LED
Adjustable shelves / Shelf material	5 / wire shelves plastic-coated
Usable shelf area in mm (w / d)	420 / 400
Shelf loading / Maximum total load	45 kg / 315 kg
Castors	
Drawers / Number of baskets included	6 / -
Handle	antimicrobial handle with opening mechanism
Access ports	1 x Ø 10 mm
DIN 13277	yes
Type of lock / Door hinges	mechanical / right, reversible on site
Gross / net weight	86 / 81 kg
Accessories	
White grid shelf	7113416
White base grid	7112594
Standard full-depth basket	
Castors Ø 80 mm / Ø 100 mm	9086926 / 9080023
Adjustable feet, 90 – 120 mm / 150 – 180 mm	9080022 / 9086924
Additional lock barrels (up to 5)	on request
Side-by-Side set in white	9006786
Product sensor (PT 1000)	6942678

New

<sup>1</sup> Measured at +25°C ambient temperature and +5°C set temperature for fridges and -20°C for freezers.

<sup>2</sup> The temperature range is valid at a maximum ambient temperature of +30°C

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

<sup>4</sup> Max. fluctuation as per EN 60068-3: greatest fluctuation value determined throughout the duration of measurements.



### SFFsg 5501

Performance

Gross / net capacity	499 / 394 litre
Exterior dimensions in mm (w / d / h)	747 / 769 / 1684
Interior dimensions in mm (w / d / h)	588 / 523 / 1388
Energy consumption in 365 days <sup>1</sup>	501 kWh
Ambient temperature range	+10 °C to +35 °C
Heat output	713 kJ/h
Refrigerant	R 290
Sound power level	49 dB(A)
Voltage / frequency	220 - 240V~ / 50 Hz
Connection rating	2.0 A
Rated consumption watts	240 W
Cooling system / Defrost	static / manual
Temperature range	-9 °C to -30 °C
Gradient <sup>2</sup> / max. fluctuation <sup>3</sup>	6.0 °C / 2.9 °C
External cabinet finish	steel / white
Door material	steel
Internal liner material	commercial grade moulded polystyrol
Type of control	monochrome display, touch buttons
Power failure alarm	when mains power return
Fault: warning signal	visual and audible
Volt-free alarm contact	yes
SmartMonitoring compatible / Connectivity type	yes / SmartModule
Connectivity solution	retrofittable
Interface	WiFi/LAN (optional)
Removable shelves	4
Shelf material	wire shelves plastic-coated
Usable shelf area in mm (w / d)	580 / 523
Shelf loading / Maximum total load	60 kg / 300 kg
Drawers / Number of baskets included	
Handle	antimicrobial handle with opening mechanism
Access ports	1 x Ø 10 mm
Type of lock	mechanical
Door hinges	right, reversible on site
Gross / net weight	94 / 80 kg
Accessories	
Glass shelf	9293495
Full-depth drawer	9797881
Short bottom basket / Standard full-depth basket	9141004 / 9141791
Castors Ø 80 mm / Ø 100 mm	9086926 / 9080023
Adjustable feet, 90 - 120 mm / 150 - 180 mm	9080022 / 9086924
Additional lock barrels (up to 5)	on request
Side-by-Side set in white	9017739
SmartModule	6145269



### SFFsg 5501 ver. 147

Performance

Gross / net capacity	499 / 394 litre
Exterior dimensions in mm (w / d / h)	747 / 769 / 1684
Interior dimensions in mm (w / d / h)	588 / 523 / 1388
Energy consumption in 365 days <sup>1</sup>	501 kWh
Ambient temperature range	+10 °C to +35 °C
Heat output	713 kJ/h
Refrigerant	R 290
Sound power level	49 dB(A)
Voltage / frequency	220 - 240V~ / 50 Hz
Connection rating	2.0 A
Rated consumption watts	240 W
Cooling system / Defrost	static / manual
Temperature range	-9 °C to -30 °C
Gradient <sup>2</sup> / max. fluctuation <sup>3</sup>	6.0 °C / 2.9 °C
External cabinet finish	steel / white
Door material	steel
Internal liner material	commercial grade moulded polystyrol
Type of control	monochrome display, touch buttons
Power failure alarm	when mains power return
Fault: warning signal	visual and audible
Volt-free alarm contact	yes
SmartMonitoring compatible / Connectivity type	yes / SmartModule
Connectivity solution	retrofittable
Interface	WiFi/LAN (optional)
Removable shelves	4
Shelf material	wire shelves plastic-coated
Usable shelf area in mm (w / d)	580 / 523
Shelf loading / Maximum total load	60 kg / 300 kg
Drawers / Number of baskets included	8 / 2
Handle	antimicrobial handle with opening mechanism
Access ports	1 x Ø 10 mm
Type of lock	mechanical
Door hinges	right, reversible on site
Gross / net weight	106 / 80 kg
Accessories	
Glass shelf	9293495
Full-depth drawer	
Short bottom basket / Standard full-depth basket	
Castors Ø 80 mm / Ø 100 mm	9086926 / 9080023
Adjustable feet, 90 - 120 mm / 150 - 180 mm	9080022 / 9086924
Additional lock barrels (up to 5)	on request
Side-by-Side set in white	9017739
SmartModule	6145269



### SFFsg 4001

Performance

Gross / net capacity	316 / 242 litre
Exterior dimensions in mm (w / d / h)	597 / 654 / 1884
Interior dimensions in mm (w / d / h)	403 / 408 / 1588
Energy consumption in 365 days <sup>1</sup>	385 kWh
Ambient temperature range	+10 °C to +35 °C
Heat output	529 kJ/h
Refrigerant	R 290
Sound power level	49 dB(A)
Voltage / frequency	220 - 240V~ / 50 Hz
Connection rating	2.0 A
Rated consumption watts	220 W
Cooling system	static
Defrost	manual
Temperature range	-9 °C to -30 °C
Gradient <sup>2</sup> / max. fluctuation <sup>3</sup>	5.7 °C / 2.5 °C
External cabinet finish	steel / white
Door material	steel
Internal liner material	commercial grade moulded polystyrol
Type of control	monochrome display, touch buttons
Power failure alarm	when mains power return
Fault: warning signal	visual and audible
Volt-free alarm contact	yes
SmartMonitoring compatible / Connectivity type	yes / SmartModule
Connectivity solution	retrofittable
Interface	WiFi/LAN (optional)
Removable shelves	5
Shelf material	wire shelves plastic-coated
Usable shelf area in mm (w / d)	400 / 408
Shelf loading / Maximum total load	45 kg / 270 kg
Drawers	
Handle	antimicrobial handle with opening mechanism
Access ports	1 x Ø 10 mm
Type of lock	mechanical
Door hinges	right, reversible on site
Gross / net weight	82 / 77 kg
Accessories	
Glass shelf	9293499
Castors Ø 80 mm / Ø 100 mm	9086926 / 9080023
Adjustable feet, 90 - 120 mm	9080022
Adjustable feet, 150 - 180 mm	9086924
Additional lock barrels (up to 5)	on request
Side-by-Side set in white	9006786
SmartModule	6145269

Gross / net capacity	316 / 190 litre
Exterior dimensions in mm (w / d / h)	597 / 654 / 1884
Interior dimensions in mm (w / d / h)	403 / 408 / 1588
Energy consumption in 365 days <sup>1</sup>	385 kWh
Ambient temperature range	+10 °C to +35 °C
Heat output	529 kJ/h
Refrigerant	R 290
Sound power level	49 dB(A)
Voltage / frequency	220 - 240V~ / 50 Hz
Connection rating	2.0 A
Rated consumption watts	220 W
Cooling system	static
Defrost	manual
Temperature range	-9 °C to -30 °C
Gradient <sup>2</sup> / max. fluctuation <sup>3</sup>	5.7 °C / 2.5 °C
External cabinet finish	steel / white
Door material	steel
Internal liner material	commercial grade moulded polystyrol
Type of control	monochrome display, touch buttons
Power failure alarm	when mains power return
Fault: warning signal	visual and audible
Volt-free alarm contact	yes
SmartMonitoring compatible / Connectivity type	yes / SmartModule
Connectivity solution	retrofittable
Interface	WiFi/LAN (optional)
Removable shelves	5
Shelf material	wire shelves plastic-coated
Usable shelf area in mm (w / d)	400 / 408
Shelf loading / Maximum total load	45 kg / 270 kg
Drawers	6
Handle	antimicrobial handle with opening mechanism
Access ports	1 x Ø 10 mm
Type of lock	mechanical
Door hinges	right, reversible on site
Gross / net weight	88 / 77 kg
Accessories	
Glass shelf	9293499
Castors Ø 80 mm / Ø 100 mm	9086926 / 9080023
Adjustable feet, 90 - 120 mm	9080022
Adjustable feet, 150 - 180 mm	9086924
Additional lock barrels (up to 5)	on request
Side-by-Side set in white	9006786
SmartModule	6145269



### SFFsg 4001 ver. 147

Performance

Gross / net capacity	316 / 190 litre
Exterior dimensions in mm (w / d / h)	597 / 654 / 1884
Interior dimensions in mm (w / d / h)	403 / 408 / 1588
Energy consumption in 365 days <sup>1</sup>	385 kWh
Ambient temperature range	+10 °C to +35 °C
Heat output	529 kJ/h
Refrigerant	R 290
Sound power level	49 dB(A)
Voltage / frequency	220 - 240V~ / 50 Hz
Connection rating	2.0 A
Rated consumption watts	220 W
Cooling system	static
Defrost	manual
Temperature range	-9 °C to -30 °C
Gradient <sup>2</sup> / max. fluctuation <sup>3</sup>	5.7 °C / 2.5 °C
External cabinet finish	steel / white
Door material	steel
Internal liner material	commercial grade moulded polystyrol
Type of control	monochrome display, touch buttons
Power failure alarm	when mains power return
Fault: warning signal	visual and audible
Volt-free alarm contact	yes
SmartMonitoring compatible / Connectivity type	yes / SmartModule
Connectivity solution	retrofittable
Interface	WiFi/LAN (optional)
Removable shelves	5
Shelf material	wire shelves plastic-coated
Usable shelf area in mm (w / d)	400 / 408
Shelf loading / Maximum total load	45 kg / 270 kg
Drawers	6
Handle	antimicrobial handle with opening mechanism
Access ports	1 x Ø 10 mm
Type of lock	mechanical
Door hinges	right, reversible on site
Gross / net weight	88 / 77 kg
Accessories	
Glass shelf	9293499
Castors Ø 80 mm / Ø 100 mm	9086926 / 9080023
Adjustable feet, 90 - 120 mm	9080022
Adjustable feet, 150 - 180 mm	9086924
Additional lock barrels (up to 5)	on request
Side-by-Side set in white	9006786
SmartModule	6145269



## Laboratory refrigerators with plastic inner liner



**LKUv 1613**  
MediLine

<b>Gross / net capacity</b>	152 / 132 litre
<b>Exterior dimensions in mm (w / d / h)</b>	601 / 618 / 820
<b>Interior dimensions in mm (w / d / h)</b>	440 / 435 / 670
<b>Energy consumption in 365 days<sup>1</sup></b>	369 kWh
<b>Ambient temperature range</b>	+10 °C to +35 °C
<b>Heat output</b>	480 kJ/h
<b>Refrigerant</b>	R 600a
<b>Sound power level</b>	47 dB(A)
<b>Voltage / frequency</b>	220 - 240V~ / 50 Hz
<b>Connection rating</b>	1.0 A
<b>Rated consumption watts</b>	130 W
<b>Cooling system</b>	forced-air
<b>Defrost</b>	automatic
<b>Temperature range</b>	+3 °C to +16 °C
<b>Gradient<sup>2</sup> / max. fluctuation<sup>3</sup></b>	5.1 °C / 4.9 °C
<b>External cabinet finish</b>	steel / white
<b>Door material</b>	glass door
<b>Internal liner material</b>	commercial grade moulded polystyrol
<b>Type of control</b>	LED 7-segment display with buttons
<b>Power failure alarm</b>	when mains power return
<b>Fault: warning signal</b>	visual and audible
<b>Volt-free alarm contact</b>	yes
<b>SmartMonitoring compatible</b>	yes
<b>Connectivity type</b>	SmartCoolingHub
<b>Connectivity solution</b>	retrofittable
<b>Interface</b>	RS485
<b>Interior light</b>	LED ceiling light strip with separate switch
<b>Adjustable shelves</b>	3
<b>Shelf material</b>	wire shelves plastic-coated
<b>Usable shelf area in mm (w / d)</b>	440 / 420
<b>Shelf loading</b>	45 kg
<b>Handle</b>	slimline handle with integrated opening mechanism
<b>Access ports</b>	1 x Ø 10 mm
<b>Type of lock</b>	mechanical
<b>Door hinges</b>	right, reversible on site
<b>Gross / net weight</b>	45 / 43 kg
<b>Accessories</b>	
<b>White grid shelf</b>	7113333
<b>Stacking kit, white</b>	9592697
<b>Roller bars</b>	9590521
<b>Evaporator cover, white</b>	9590523
<b>SmartCoolingHub</b>	6125784
<b>Additional lock barrels (up to 10)</b>	on request



**LKUv 1610**  
MediLine

<b>Gross / net capacity</b>	142 / 133 litre
<b>Exterior dimensions in mm (w / d / h)</b>	601 / 618 / 820
<b>Interior dimensions in mm (w / d / h)</b>	440 / 435 / 670
<b>Energy consumption in 365 days<sup>1</sup></b>	273 kWh
<b>Ambient temperature range</b>	+10 °C to +35 °C
<b>Heat output</b>	200 kJ/h
<b>Refrigerant</b>	R 600a
<b>Sound power level</b>	47 dB(A)
<b>Voltage / frequency</b>	220 - 240V~ / 50 Hz
<b>Connection rating</b>	1.0 A
<b>Rated consumption watts</b>	100 W
<b>Cooling system</b>	forced-air
<b>Defrost</b>	automatic
<b>Temperature range</b>	+3 °C to +16 °C
<b>Gradient<sup>2</sup> / max. fluctuation<sup>3</sup></b>	4.3 °C / 4.6 °C
<b>External cabinet finish</b>	steel / white
<b>Door material</b>	steel
<b>Internal liner material</b>	commercial grade moulded polystyrol
<b>Type of control</b>	LED 7-segment display with buttons
<b>Power failure alarm</b>	when mains power return
<b>Fault: warning signal</b>	visual and audible
<b>Volt-free alarm contact</b>	yes
<b>SmartMonitoring compatible</b>	yes
<b>Connectivity type</b>	SmartCoolingHub
<b>Connectivity solution</b>	retrofittable
<b>Interface</b>	RS485
<b>Interior light</b>	
<b>Adjustable shelves</b>	3
<b>Shelf material</b>	wire shelves plastic-coated
<b>Usable shelf area in mm (w / d)</b>	440 / 420
<b>Shelf loading</b>	45 kg
<b>Handle</b>	slimline handle with integrated opening mechanism
<b>Access ports</b>	1 x Ø 10 mm
<b>Type of lock</b>	mechanical
<b>Door hinges</b>	right, reversible on site
<b>Gross / net weight</b>	39 / 36 kg
<b>Accessories</b>	
<b>White grid shelf</b>	7113333
<b>Stacking kit, white</b>	9592697
<b>Roller bars</b>	9590521
<b>Evaporator cover, white</b>	9590523
<b>SmartCoolingHub</b>	6125784
<b>Additional lock barrels (up to 10)</b>	on request

## Laboratory fridge-freezer combination with plastic inner liner



**SCFvh 4032**  
Perfection

<b>Gross / net capacity</b>	fridge comp.	284 / 206 litre
<b>Gross / net capacity</b>	freezer comp.	112 / 58 litre
<b>Exterior dimensions in mm (w / d / h)</b>		597 / 654 / 2044
<b>Interior dimensions in mm (w / d / h)</b>	fridge comp.	460 / 423 / 1037
<b>Interior dimensions in mm (w / d / h)</b>	freezer comp.	406 / 292 / 595
<b>Energy consumption in 365 days<sup>1</sup></b>		409 kWh
<b>Ambient temperature range</b>		+10 °C to +35 °C
<b>Heat output</b>		380 kJ/h
<b>Refrigerant</b>		R 600a
<b>Sound power level</b>		48 dB(A)
<b>Voltage / frequency</b>		220 - 240V~ / 50/60 Hz
<b>Connection rating / Rated consumption watts</b>		2.0 A / 160 W
<b>Cooling system</b>	fridge / freezer comp.	forced-air / forced-air
<b>Defrost</b>	fridge / freezer comp.	automatic / automatic
<b>Temperature range</b>	fridge / freezer comp.	+3 °C to +16 °C / -9 °C to -30 °C
<b>Gradient<sup>2</sup></b>	fridge / freezer comp.	3.4 °C / 4.4 °C
<b>Max. fluctuation<sup>3</sup></b>	fridge / freezer comp.	2.7 °C / 8.1 °C
<b>External cabinet finish</b>		steel / white
<b>Door material</b>		glass door / steel
<b>Internal liner material</b>		commercial grade moulded polystyrol
<b>Type of control</b>		2.4" touch & swipe colour display
<b>Power failure alarm</b>		immediately upon power failure for at least 12 hrs
<b>Fault: warning signal / Volt-free alarm contact</b>		visual and audible / yes
<b>SmartMonitoring compatible / Connectivity type</b>		yes / SmartModule
<b>Connectivity solution / Interface</b>		integrated, removable / WiFi/LAN
<b>Data logger</b>		integrated, USB interface
<b>Interior light</b>	fridge / freezer comp.	vertical LED light strip recessed in left wall with separate switch / LED
<b>Adjustable shelves</b>	fridge comp.	4
<b>Shelf material</b>	fridge / freezer comp.	wire shelves plastic-coated / glass
<b>Usable shelf area in mm (w / d)</b>	fridge comp.	460 / 423
<b>Shelf loading</b>	fridge / freezer comp.	45 kg / 40 kg
<b>Maximum total load</b>		345 kg
<b>Drawers</b>	freezer comp.	3
<b>Handle</b>		antimicrobial handle with opening mechanism
<b>Access ports / DIN 13277</b>		1 x Ø 10 mm / yes
<b>Type of lock / Door hinges</b>		mechanical / right, reversible on site
<b>Gross / net weight</b>		103 / 97 kg
<b>Accessories</b>		
<b>White grid shelf / White base grid</b>		7113308 / 7113272
<b>Perforated metal shelf, white / Scanner rail</b>		9029022 / 7435208
<b>Castors Ø 80 mm / Ø 100 mm</b>		9086926 / 9080023
<b>Adjustable feet, 90 - 120 mm / 150 - 180 mm</b>		9080022 / 9086924
<b>Additional lock barrels / Side-by-Side set in white</b>		on request / 9027388

New



**SCFvh 4002**  
Perfection

<b>Gross / net capacity</b>	272 / 206 litre
<b>Gross / net capacity</b>	112 / 58 litre
<b>Exterior dimensions in mm (w / d / h)</b>	597 / 654 / 2044
<b>Interior dimensions in mm (w / d / h)</b>	460 / 423 / 1037
<b>Interior dimensions in mm (w / d / h)</b>	406 / 292 / 595
<b>Energy consumption in 365 days<sup>1</sup></b>	277 kWh
<b>Ambient temperature range</b>	+10 °C to +35 °C
<b>Heat output</b>	290 kJ/h
<b>Refrigerant</b>	R 600a
<b>Sound power level</b>	48 dB(A)
<b>Voltage / frequency</b>	220 - 240V~ / 50/60 Hz
<b>Connection rating / Rated consumption watts</b>	2.0 A / 140 W
<b>Cooling system</b>	forced-air / forced-air
<b>Defrost</b>	automatic / automatic
<b>Temperature range</b>	+3 °C to +16 °C / -9 °C to -30 °C
<b>Gradient<sup>2</sup></b>	3.3 °C / 3.3 °C
<b>Max. fluctuation<sup>3</sup></b>	3.0 °C / 6.4 °C
<b>External cabinet finish</b>	steel / white
<b>Door material</b>	steel
<b>Internal liner material</b>	commercial grade moulded polystyrol
<b>Type of control</b>	2.4" touch & swipe colour display
<b>Power failure alarm</b>	immediately upon power failure for at least 12 hrs
<b>Fault: warning signal / Volt-free alarm contact</b>	visual and audible / yes
<b>SmartMonitoring compatible / Connectivity type</b>	yes / SmartModule
<b>Connectivity solution / Interface</b>	integrated, removable / WiFi/LAN
<b>Data logger</b>	integrated, USB interface
<b>Interior light</b>	LED lighting column, left / LED
<b>Adjustable shelves</b>	4
<b>Shelf material</b>	wire shelves plastic-coated / glass
<b>Usable shelf area in mm (w / d)</b>	460 / 423
<b>Shelf loading</b>	45 kg / 40 kg
<b>Maximum total load</b>	345 kg
<b>Drawers</b>	3
<b>Handle</b>	antimicrobial handle with opening mechanism
<b>Access ports / DIN 13277</b>	1 x Ø 10 mm / yes
<b>Type of lock / Door hinges</b>	mechanical / right, reversible on site
<b>Gross / net weight</b>	90 / 83 kg
<b>Accessories</b>	
<b>White grid shelf / White base grid</b>	7113308 / 7113272
<b>Perforated metal shelf, white / Scanner rail</b>	9029022 / 7435208
<b>Castors Ø 80 mm / Ø 100 mm</b>	9086926 / 9080023
<b>Adjustable feet, 90 - 120 mm / 150 - 180 mm</b>	9080022 / 9086924
<b>Additional lock barrels / Side-by-Side set in white</b>	on request / 9027388

New

# The advantages at a glance

## +2 °C SafetyDevice

If the temperature falls below +2 °C due to a malfunction, the SafetyDevice takes control, stabilising the temperature, activating the alarm and protecting the contents from freezing.



## Power failure info

The power failure info function reports when the appliance was temporarily without power and what the maximum temperature was during this time. This allows you to better assess the potential loss of quality.

## Min./max. temperature log

The min./max. temperature log stores the minimum and maximum interior temperatures and shows on the display whether the storage temperatures were within the tolerance limits.

## Easy-to-clean interior

The inner liner made of fully recyclable, robust and odourless polystyrene is manufactured in one piece without joints. This makes it quick and easy to clean the large, rounded corners.

## Feedthrough for external sensors

An integrated opening allows a separate sensor to be connected for additional temperature monitoring without having to drill holes or break the door seal.



SRFfg 4001 Performance



## Mechanical lock

Liebherr professional appliances are equipped with a mechanical lock and two keys. This ensures that unauthorised persons cannot access your valuable and sensitive stored goods.

## SmartMonitoring

The cloud-based digital solution continuously monitors and documents temperatures and alerts you immediately via email, text message or phone if any deviations occur.

## Retrofittable WiFi/LAN interface

The retrofittable WiFi/LAN interface enables you to easily connect your appliances with Liebherr SmartMonitoring or existing local systems.

## Antimicrobial handle with opening mechanism

A benefit for users but a bane for germs: The easy-turn handle mechanism makes opening the door effortless. It contains special antimicrobial substances that reduce bacteria by up to 99.99%\*. Regular and time-consuming disinfection is not necessary. This means the appliance is extremely safe even if many people have access to it. \*According to ISO 22196:2011



## Replaceable door seal

Save time and money: the insertable Liebherr door seals are easy to change. If a seal is damaged, you can replace it yourself without any tools. Contact Liebherr Customer Service to purchase replacements.

## Self-closing door < 90°

To make loading, unloading and cleaning easier, the appliance door stays open if opened by more than 90°. If the opening angle is less than 90°, it closes automatically for safety.

## Quality right down to the smallest detail

### Robust glass shelves

For more convenience in the lab, the robust glass shelves of the refrigerators and freezers with spark-proof interior are easy to clean and simple to remove when the door is opened by around 90°.



### Explosion protection: ATEX 95

The ATEX-95 certification confirms that the Liebherr spark-free laboratory refrigerators and freezers are suitable for storing explosive and highly flammable materials as defined by EU Directive 2014/34/EU (ATEX).



### Super-efficient

Rising electricity prices are increasing the demands on the efficiency of refrigerators and freezers. From the compressor to the seal, to the lighting and electronics, Liebherr fully utilises the savings potential of every component. The result is impressive – especially in terms of total operating costs.



### ±3 °C temperature stability

Temperature fluctuations must be minimal to ensure that the quality of sensitive substances is preserved. Liebherr Laboratory refrigerators have an impressive maximum deviation of just ±3 °C from the set temperature. This not only maintains the storage climate, but also the value of your stored goods.



### IEC 61010-2-011

Liebherr refrigerators and freezers specially developed for storing temperature-sensitive products are CE safety-compliant. This ensures that all mechanical and electrical requirements for injury-free operation are met – and that you and your team are always safe.





### SRFfg 5501

#### Performance

Gross / net capacity	558 / 441 litre
Exterior dimensions in mm (w / d / h)	747 / 769 / 1684
Interior dimensions in mm (w / d / h)	600 / 537 / 1460
Energy consumption in 365 days <sup>1</sup>	399 kWh
Ambient temperature range	+10 °C to +35 °C
Heat output	408 kJ/h
Refrigerant	R 600a
Sound power level	49 dB(A)
Voltage / frequency	220 - 240V~ / 50 Hz
Connection rating	2.0 A
Rated consumption watts	145 W
Cooling system / Defrost	forced-air / automatic
Temperature range	+3 °C to +16 °C
Gradient <sup>2</sup> / max. fluctuation <sup>3</sup>	3.7 °C / 3.0 °C
External cabinet finish	steel / white
Door material	steel
Internal liner material	commercial grade moulded polystyrol
Type of control	monochrome display, touch buttons
Power failure alarm	when mains power return
Fault: warning signal	visual and audible
Volt-free alarm contact	yes
SmartMonitoring compatible / Connectivity type	yes / SmartModule
Connectivity solution	retrofittable
Interface	WiFi/LAN (optional)
Adjustable shelves	5
Shelf material	glass
Usable shelf area in mm (w / d)	600 / 537
Shelf loading / Maximum total load	40 kg / 300 kg
Handle	antimicrobial handle with opening mechanism
Access ports	1 x Ø 10 mm
ATEX conformity	yes
Type of lock	mechanical
Door hinges	right, reversible on site
Gross / net weight	91 / 80 kg
Accessories	
Glass shelf	9291929
Perforated metal shelf, white	
Scanner rail	7435210
Castors Ø 80 mm / Ø 100 mm	9086926 / 9080023
Adjustable feet, 90 - 120 mm / 150 - 180 mm	9080022 / 9086924
Additional lock barrels (up to 5)	on request
Side-by-Side set in white	9017739
SmartModule	6145269



### SRFfg 4001

#### Performance

Gross / net capacity	394 / 298 litre
Exterior dimensions in mm (w / d / h)	597 / 654 / 1884
Interior dimensions in mm (w / d / h)	460 / 422 / 1660
Energy consumption in 365 days <sup>1</sup>	421 kWh
Ambient temperature range	+10 °C to +35 °C
Heat output	454 kJ/h
Refrigerant	R 600a
Sound power level	49 dB(A)
Voltage / frequency	220 - 240V~ / 50 Hz
Connection rating	2.0 A
Rated consumption watts	140 W
Cooling system / Defrost	forced-air / automatic
Temperature range	+3 °C to +16 °C
Gradient <sup>2</sup> / max. fluctuation <sup>3</sup>	5.1 °C / 3.2 °C
External cabinet finish	steel / white
Door material	steel
Internal liner material	commercial grade moulded polystyrol
Type of control	monochrome display, touch buttons
Power failure alarm	when mains power return
Fault: warning signal	visual and audible
Volt-free alarm contact	yes
SmartMonitoring compatible / Connectivity type	yes / SmartModule
Connectivity solution	retrofittable
Interface	WiFi/LAN (optional)
Adjustable shelves	5
Shelf material	glass
Usable shelf area in mm (w / d)	460 / 422
Shelf loading / Maximum total load	40 kg / 225 kg
Handle	antimicrobial handle with opening mechanism
Access ports	1 x Ø 10 mm
ATEX conformity	yes
Type of lock	mechanical
Door hinges	right, reversible on site
Gross / net weight	74 / 68 kg
Accessories	
Glass shelf	9293493
Perforated metal shelf, white	9029022
Scanner rail	7435208
Castors Ø 80 mm / Ø 100 mm	9086926 / 9080023
Adjustable feet, 90 - 120 mm / 150 - 180 mm	9080022 / 9086924
Additional lock barrels (up to 5)	on request
Side-by-Side set in white	9006786
SmartModule	6145269



### SRFfg 3501

#### Performance

Gross / net capacity	344 / 261 litre
Exterior dimensions in mm (w / d / h)	597 / 654 / 1684
Interior dimensions in mm (w / d / h)	460 / 537 / 1460
Energy consumption in 365 days <sup>1</sup>	406 kWh
Ambient temperature range	+10 °C to +35 °C
Heat output	388 kJ/h
Refrigerant	R 600a
Sound power level	48 dB(A)
Voltage / frequency	220 - 240V~ / 50 Hz
Connection rating	2.0 A
Rated consumption watts	120 W
Cooling system / Defrost	forced-air / automatic
Temperature range	+3 °C to +16 °C
Gradient <sup>2</sup> / max. fluctuation <sup>3</sup>	3.6 °C / 3.1 °C
External cabinet finish	steel / white
Door material	steel
Internal liner material	commercial grade moulded polystyrol
Type of control	monochrome display, touch buttons
Power failure alarm	when mains power return
Fault: warning signal	visual and audible
Volt-free alarm contact	yes
SmartMonitoring compatible / Connectivity type	yes / SmartModule
Connectivity solution	retrofittable
Interface	WiFi/LAN (optional)
Adjustable shelves	4
Shelf material	glass
Usable shelf area in mm (w / d)	460 / 537
Shelf loading / Maximum total load	40 kg / 180 kg
Handle	antimicrobial handle with opening mechanism
Access ports	1 x Ø 10 mm
ATEX conformity	yes
Type of lock	mechanical
Door hinges	right, reversible on site
Gross / net weight	68 / 60 kg
Accessories	
Glass shelf	9293493
Perforated metal shelf, white	9029022
Scanner rail	7435208
Castors Ø 80 mm / Ø 100 mm	9086926 / 9080023
Adjustable feet, 90 - 120 mm / 150 - 180 mm	9080022 / 9086924
Additional lock barrels (up to 5)	on request
Side-by-Side set in white	9017739
SmartModule	6145269

# Quality right down to the smallest detail

Liebherr offers refrigerators and freezers with a spark-free interior specifically for storing explosive and highly flammable substances in laboratories and in the chemical industry. The inner liners meet the safety requirements of 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 electro-suisse – SEV (Swiss association for electrical and power engineering and information technology), an approved ATEX conformity evaluation organisation.



Smart Frost



## SmartFrost

Where there's no ice, there's no need to defrost: SmartFrost greatly reduces the frost build-up in the interior and on stored products. Defrosting is required less often – and when it is necessary, it is made much easier by the smooth, easy-to-clean interior walls. The evaporator is embedded in foam insulation, ensuring high energy efficiency and uniform cooling.



## ±5 °C temperature stability

Sensitive substances cannot be subjected to large deviations from the set storage temperature. Liebherr freezers guarantee a temperature fluctuation of no more than ±5 °C, so that the valuable goods you store in them are optimally protected and their quality is preserved.

## Compliance with the ATEX Directive

Liebherr laboratory appliances conform to EN/IEC 60079-0 / EN-IEC 60079-7 and comply with EU Directive 2014/34/EU ("ATEX Directive"). With an interior classified according to <Ex> II 3 G Ex ec IIC T6 (declared as Zone 22), they are suitable for flammable substances in closed containers that could form explosive atmospheres.



## IEC 61010-2-011

Liebherr refrigerators and freezers specially developed for storing temperature-sensitive products are CE safety-compliant. This ensures that all mechanical and electrical requirements for injury-free operation are met – and that you and your team are always safe.

## Laboratory freezers with spark-free interior



**SFFfg 5501**  
Performance

Gross / net capacity	499 / 394 litre
Exterior dimensions in mm (w / d / h)	747 / 769 / 1684
Interior dimensions in mm (w / d / h)	588 / 517 / 1388
Energy consumption in 365 days <sup>1</sup>	516 kWh
Ambient temperature range	+10 °C to +35 °C
Heat output	713 kJ/h
Refrigerant	R 290
Sound power level	49 dB(A)
Voltage / frequency	220 – 240V~ / 50 Hz
Connection rating	2.0 A
Rated consumption watts	240 W
Cooling system / Defrost	static / manual
Temperature range	-9 °C to -30 °C
Gradient <sup>2</sup> / max. fluctuation <sup>3</sup>	5.4 °C / 3.3 °C
External cabinet finish	steel / white
Door material	steel
Internal liner material	commercial grade moulded polystyrol
Type of control	monochrome display, touch buttons
Power failure alarm	when mains power return
Fault: warning signal	visual and audible
Volt-free alarm contact	yes
SmartMonitoring compatible	yes
Connectivity type	SmartModule
Connectivity solution	retrofittable
Interface	WiFi/LAN (optional)
Removable shelves	4
Shelf material	glass
Usable shelf area in mm (w / d)	580 / 517
Shelf loading / Maximum total load	40 kg / 300 kg
Drawers	
Handle	antimicrobial handle with opening mechanism
Access ports	1 x Ø 10 mm
ATEX conformity	yes
Type of lock	mechanical
Door hinges	right, reversible on site
Gross / net weight	96 / 89 kg
Accessories	
Long drawer / Short drawer	9749825 / -
Castors Ø 80 mm / Ø 100 mm	9086926 / 9080023
Adjustable feet, 90 – 120 mm / 150 – 180 mm	9080022 / 9086924
Additional lock barrels (up to 5)	on request
Side-by-Side set in white	9017739
SmartModule	6145269



**SFFfg 5501 ver. 147**  
Performance

Gross / net capacity	499 / 394 litre
Exterior dimensions in mm (w / d / h)	747 / 769 / 1684
Interior dimensions in mm (w / d / h)	588 / 517 / 1388
Energy consumption in 365 days <sup>1</sup>	516 kWh
Ambient temperature range	+10 °C to +35 °C
Heat output	713 kJ/h
Refrigerant	R 290
Sound power level	49 dB(A)
Voltage / frequency	220 – 240V~ / 50 Hz
Connection rating	2.0 A
Rated consumption watts	240 W
Cooling system / Defrost	static / manual
Temperature range	-9 °C to -30 °C
Gradient <sup>2</sup> / max. fluctuation <sup>3</sup>	5.4 °C / 3.3 °C
External cabinet finish	steel / white
Door material	steel
Internal liner material	commercial grade moulded polystyrol
Type of control	monochrome display, touch buttons
Power failure alarm	when mains power return
Fault: warning signal	visual and audible
Volt-free alarm contact	yes
SmartMonitoring compatible	yes
Connectivity type	SmartModule
Connectivity solution	retrofittable
Interface	WiFi/LAN (optional)
Removable shelves	4
Shelf material	glass
Usable shelf area in mm (w / d)	580 / 517
Shelf loading / Maximum total load	40 kg / 300 kg
Drawers	8
Handle	antimicrobial handle with opening mechanism
Access ports	1 x Ø 10 mm
ATEX conformity	yes
Type of lock	mechanical
Door hinges	right, reversible on site
Gross / net weight	106 / 89 kg
Accessories	
Long drawer / Short drawer	
Castors Ø 80 mm / Ø 100 mm	9086926 / 9080023
Adjustable feet, 90 – 120 mm / 150 – 180 mm	9080022 / 9086924
Additional lock barrels (up to 5)	on request
Side-by-Side set in white	9017739
SmartModule	6145269



**SFFfg 4001**  
Performance

Gross / net capacity	316 / 242 litre
Exterior dimensions in mm (w / d / h)	597 / 654 / 1884
Interior dimensions in mm (w / d / h)	403 / 402 / 1588
Energy consumption in 365 days <sup>1</sup>	384 kWh
Ambient temperature range	+10 °C to +35 °C
Heat output	529 kJ/h
Refrigerant	R 290
Sound power level	49 dB(A)
Voltage / frequency	220 – 240V~ / 50 Hz
Connection rating	2.0 A
Rated consumption watts	220 W
Cooling system / Defrost	static / manual
Temperature range	-9 °C to -30 °C
Gradient <sup>2</sup> / max. fluctuation <sup>3</sup>	5.2 °C / 2.4 °C
External cabinet finish	steel / white
Door material	steel
Internal liner material	commercial grade moulded polystyrol
Type of control	monochrome display, touch buttons
Power failure alarm	when mains power return
Fault: warning signal	visual and audible
Volt-free alarm contact	yes
SmartMonitoring compatible	yes
Connectivity type	SmartModule
Connectivity solution	retrofittable
Interface	WiFi/LAN (optional)
Removable shelves	5
Shelf material	glass
Usable shelf area in mm (w / d)	400 / 402
Shelf loading / Maximum total load	40 kg / 270 kg
Drawers	
Handle	antimicrobial handle with opening mechanism
Access ports	1 x Ø 10 mm
ATEX conformity	yes
Type of lock	mechanical
Door hinges	right, reversible on site
Gross / net weight	83 / 76 kg
Accessories	
Long drawer / Short drawer	9749823 / 9749844
Castors Ø 80 mm / Ø 100 mm	9086926 / 9080023
Adjustable feet, 90 – 120 mm / 150 – 180 mm	9080022 / 9086924
Additional lock barrels (up to 5)	on request
Side-by-Side set in white	9006786
SmartModule	6145269



**SFFfg 4001 ver. 740**  
Performance

Gross / net capacity	316 / 190 litre
Exterior dimensions in mm (w / d / h)	597 / 654 / 1884
Interior dimensions in mm (w / d / h)	403 / 402 / 1588
Energy consumption in 365 days <sup>1</sup>	384 kWh
Ambient temperature range	+10 °C to +35 °C
Heat output	529 kJ/h
Refrigerant	R 290
Sound power level	49 dB(A)
Voltage / frequency	220 – 240V~ / 50 Hz
Connection rating	2.0 A
Rated consumption watts	220 W
Cooling system / Defrost	static / manual
Temperature range	-9 °C to -30 °C
Gradient <sup>2</sup> / max. fluctuation <sup>3</sup>	5.2 °C / 2.4 °C
External cabinet finish	steel / white
Door material	steel
Internal liner material	commercial grade moulded polystyrol
Type of control	monochrome display, touch buttons
Power failure alarm	when mains power return
Fault: warning signal	visual and audible
Volt-free alarm contact	yes
SmartMonitoring compatible	yes
Connectivity type	SmartModule
Connectivity solution	retrofittable
Interface	WiFi/LAN (optional)
Removable shelves	5
Shelf material	glass
Usable shelf area in mm (w / d)	400 / 402
Shelf loading / Maximum total load	40 kg / 270 kg
Drawers	6
Handle	antimicrobial handle with opening mechanism
Access ports	1 x Ø 10 mm
ATEX conformity	yes
Type of lock	mechanical
Door hinges	right, reversible on site
Gross / net weight	88 / 76 kg
Accessories	
Long drawer / Short drawer	
Castors Ø 80 mm / Ø 100 mm	9086926 / 9080023
Adjustable feet, 90 – 120 mm / 150 – 180 mm	9080022 / 9086924
Additional lock barrels (up to 5)	on request
Side-by-Side set in white	9006786
SmartModule	6145269

New

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

<sup>2</sup> Gradient as defined in EN 60068-3: the difference between the warmest and coldest average measurements, increased by their expanded uncertainty, throughout the duration.

<sup>3</sup> Max. fluctuation as per EN 60068-3: greatest fluctuation value determined throughout the duration of measurements.

## Laboratory refrigerators and freezers with spark-free interior



**LKUexv 1610**  
MediLine

Gross / net capacity	141 / 130 litre
Exterior dimensions in mm (w / d / h)	601 / 618 / 820
Interior dimensions in mm (w / d / h)	440 / 435 / 670
Energy consumption in 365 days <sup>1</sup>	315 kWh
Ambient temperature range	+10 °C to +35 °C
Heat output	200 kJ/h
Refrigerant	R 600a
Sound power level	47 dB(A)
Voltage / frequency	220 - 240V~ / 50 Hz
Connection rating / Rated consumption watts	1.0 A / 100 W
Cooling system / Defrost	forced-air / automatic
Temperature range	+3 °C to +16 °C
Gradient <sup>2</sup> / max. fluctuation <sup>3</sup>	3.9 °C / 4.8 °C
External cabinet finish	steel / white
Door material	steel
Internal liner material	commercial grade moulded polystyrol
Type of control	LED 7-segment display with buttons
Power failure alarm	when mains power return
Fault: warning signal	visual and audible
Volt-free alarm contact	yes
SmartMonitoring compatible	yes
Connectivity type	SmartCoolingHub
Connectivity solution	retrofittable
Interface	RS485
Adjustable shelves	3
Shelf material	glass
Usable shelf area in mm (w / d)	440 / 420
Shelf loading	40 kg
Drawers / Number of baskets included	
Compartment height in mm	
Handle	slimline handle with integrated opening mechanism 1 x Ø 10 mm
Access ports	yes
ATEX conformity	mechanical
Type of lock	right, reversible on site
Door hinges	41 / 38 kg
Gross / net weight	
Accessories	9293629
Glass shelf	9592697
Stacking kit, white	9590521
Roller bars	6125784
SmartCoolingHub	on request
Additional lock barrels (up to 10)	



**LGUex 1500**  
MediLine

Gross / net capacity	139 / 129 litre
Exterior dimensions in mm (w / d / h)	601 / 618 / 820
Interior dimensions in mm (w / d / h)	454 / 450 / 663
Energy consumption in 365 days <sup>1</sup>	294 kWh
Ambient temperature range	+10 °C to +35 °C
Heat output	330 kJ/h
Refrigerant	R 600a
Sound power level	45 dB(A)
Voltage / frequency	220 - 240V~ / 50 Hz
Connection rating / Rated consumption watts	1.0 A / 75 W
Cooling system / Defrost	static / manual
Temperature range	-9 °C to -26 °C
Gradient <sup>2</sup> / max. fluctuation <sup>3</sup>	6.6 °C / 3.3 °C
External cabinet finish	steel / white
Door material	steel
Internal liner material	commercial grade moulded polystyrol
Type of control	LED 7-segment display with buttons
Power failure alarm	when mains power return
Fault: warning signal	visual and audible
Volt-free alarm contact	yes
SmartMonitoring compatible	yes
Connectivity type	SmartCoolingHub
Connectivity solution	retrofittable
Interface	RS485
Adjustable shelves	
Shelf material	evaporator plates
Usable shelf area in mm (w / d)	470 / 450
Shelf loading	24 kg
Drawers / Number of baskets included	3 / 1
Compartment height in mm	1 x 149
Handle	slimline handle with integrated opening mechanism 1 x Ø 10 mm
Access ports	yes
ATEX conformity	mechanical
Type of lock	right, reversible on site
Door hinges	43 / 42 kg
Gross / net weight	
Accessories	9592697
Glass shelf	9590521
Stacking kit, white	6125784
Roller bars	on request
SmartCoolingHub	on request
Additional lock barrels (up to 10)	

## Laboratory fridge-freezer combinations with spark-free interior



**SCFfg 4002**  
Performance

Gross / net capacity	fridge compartment
Gross / net capacity	freezer compartment
Exterior dimensions in mm (w / d / h)	
Interior dimensions in mm (w / d / h)	fridge compartment
Interior dimensions in mm (w / d / h)	freezer compartment
Energy consumption in 365 days <sup>1</sup>	
Ambient temperature range	
Heat output	
Refrigerant	
Sound power level	
Voltage / frequency	
Connection rating / Rated consumption watts	
Cooling system	fridge / freezer comp.
Defrost	fridge / freezer comp.
Temperature range	fridge / freezer comp.
Gradient <sup>2</sup>	fridge / freezer comp.
Max. fluctuation <sup>3</sup>	fridge / freezer comp.
External cabinet finish	
Door material	
Internal liner material	
Type of control	
Power failure alarm	
Fault: warning signal / Volt-free alarm contact	
SmartMonitoring compatible / Connectivity type	
Connectivity solution	
Interface	
Adjustable shelves	fridge compartment
Shelf material	fridge / freezer comp.
Usable shelf area in mm (w / d)	fridge compartment
Shelf loading	fridge / freezer comp.
Maximum total load	
Drawers	freezer compartment
Handle	
Access ports	
ATEX conformity	
Type of lock / Door hinges	
Gross / net weight	
Accessories	
Glass shelf	
Castors Ø 80 mm / Ø 100 mm	
Adjustable feet, 90 - 120 mm / 150 - 180 mm	
Additional lock barrels / Side-by-Side set in white	
SmartModule	

267 / 199 litre
110 / 62 litre
597 / 654 / 2044
460 / 422 / 1037
406 / 292 / 614
390 kWh
+10 °C to +35 °C
350 kJ/h
R 600a
48 dB(A)
220 - 240V~ / 50/60 Hz
2.0 A / 170 W
forced-air / static
automatic / manual
+3 °C to +16 °C / -9 °C to -30 °C
4.6 °C / 5.6 °C
3.6 °C / 3.2 °C
steel / white
steel
commercial grade moulded polystyrol
monochrome display, touch buttons
when mains power return
visual and audible / yes
yes / SmartModule
retrofittable
WiFi/LAN (optional)
4
glass / glass
460 / 422
40 kg / 40 kg
345 kg
3
antimicrobial handle with opening mechanism
1 x Ø 10 mm
yes
mechanical / right, reversible on site
89 / 83 kg
9293493
9086926 / 9080023
9080022 / 9086924
on request / 9027388
6145269

New



Laboratory refrigerators and freezers with stainless steel inner liner



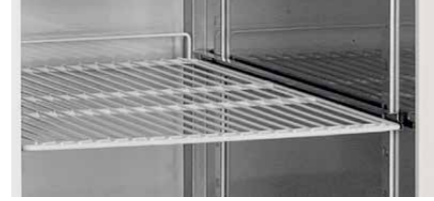
**Side-by-side set white**

Using the side-by-side set, two appliances can be placed next to each other. The required gap between the appliances is maintained, and they are neatly connected by the cover strip. This ensures tidy installation and avoids any condensation or water between the appliances.



**U-shaped trayslides**

Additional U-shaped trayslides can be retrofitted as required to provide extra storage options.



**Grid shelf grey**

If you need more storage space or want to separate stored products and have a better overview, Liebherr appliances can be equipped with additional grid shelves. Made of metal with a polypropylene coating, they are identical to the ones that come as standard in the appliances and you benefit from the same corrosion-resistant and durable extra shelving.



**Product temperature sensor**

A 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.



**SmartCoolingHub**

The SmartCoolingHub provides the basis for connecting your professional Liebherr appliances. Up to 20 network-capable Liebherr appliances can be connected via cable.

Laboratory refrigerators and freezers and laboratory fridge-freezer combination with plastic inner liner



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**Product temperature sensor**

A 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.



**Special locking**

To protect the stored products from unwanted access, special locks are available as accessories for the refrigerators and freezers. This way, different locks can be installed on several appliances to so that only the people responsible for a particular appliance have access to it.



**Stacking Kit**

The stacking kit can be used to combine two refrigerators or refrigerators and freezers. This way, different temperature zones are available on a small surface area.



**Evaporator cover**

To better protect temperature-sensitive goods and prevent them from touching the refrigeration system, a protective plate can be retrofitted in the interior. This prevents direct contact with the refrigeration components so that the goods can be safely stored in the intended area.



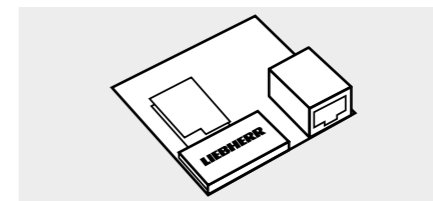
**Roller bars and height-adjustable feet**

The sturdy castors to facilitate transport and allow cleaning underneath and behind the appliance. Two roller sets including mounting accessories are supplied. The height-adjustable feet create the necessary clearance for easy cleaning under the appliance. With an individually adjustable height of 90 to 120 mm, they perfectly compensate for any unevenness on the floor.



**Grid shelf white**

If you need more storage space or want to separate stored products and have a better overview, Liebherr appliances can be equipped with additional grid shelves. Made of metal with a polypropylene coating, they are identical to the ones that come as standard in the appliances and you benefit from the same corrosion-resistant and durable extra shelving.



**SmartModule**

SmartModule connects refrigerators and freezers in a network with Liebherr SmartMonitoring and allows you to use its extensive digital monitoring and documentation functions. In addition, appliances can be integrated into a customer's existing monitoring system via a local API. The small electronic unit with integrated LAN/WiFi is ready to use as soon as it is mounted on the back of the appliance.



**Long drawer**

Always keep a good overview of your stored products with this sturdy plastic drawer. With its ergonomic handle, the drawer is very easy for you to open, day in, day out.

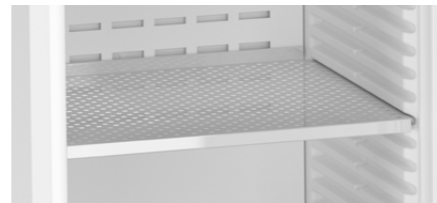
Laboratory refrigerators and freezers and laboratory fridge-freezer combination with plastic inner liner



**Glass shelf**  
Additional shelves made of high-quality safety glass not only increase storage space but also make it easier to see the goods. They are ideal for storing smaller containers or materials. In addition, the shatterproof glass shelves are quick and easy to clean.



**Side-by-side set white**  
Using the side-by-side set, two appliances can be placed next to each other. The required gap between the appliances is maintained, and they are neatly connected by the cover strip. This ensures tidy installation and avoids any condensation or water between the appliances.



**Perforated metal shelf white**  
To ensure that even small items are stored stably in the refrigeration appliances, Liebherr has developed shallow perforated metal shelves especially for this purpose. They are made of coated metal and designed for a maximum load of up to 45 kg. The perforation ensures unhindered air circulation throughout the storage space.



**Flexible scanner rail**  
Scanner rails provide a perfect overview of the materials stored in the refrigerator. Thanks to their flexibility, they can be easily attached to the front of the grid shelves. With correspondingly marked paper cards, they make it easy to sort and find stored products.



**Base grid**  
With the sturdy base grid, you can also make the most of the appliance floor. The grid has an abrasion-resistant coating and protects the inner liner from scratches and other damage.

Laboratory refrigerators and freezers and laboratory fridge-freezer combination with spark-free interior



**SmartCoolingHub**  
The SmartCoolingHub provides the basis for connecting your professional Liebherr appliances. Up to 20 network-capable Liebherr appliances can be connected via cable.



**Special locking**  
To protect the stored products from unwanted access, special locks are available as accessories for the refrigerators and freezers. This way, different locks can be installed on several appliances so that only the people responsible for a particular appliance have access to it.



**Glass shelf**  
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Laboratory refrigerators and freezers and laboratory fridge-freezer combination with spark-free interior



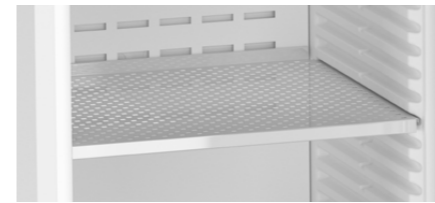
**Stacking Kit**  
The stacking kit can be used to combine two refrigerators or refrigerators and freezers. This way, different temperature zones are available on a small surface area.



**Roller bars**  
The sturdy castors within the roller bars to facilitate transport and allow cleaning underneath and behind the appliance. Two roller sets including mounting accessories are supplied.



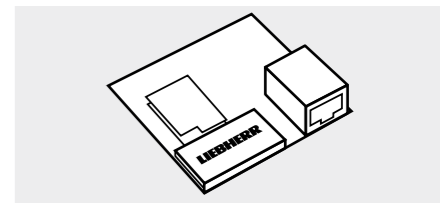
**Height-adjustable feet**  
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Always keep a good overview of your stored products with this sturdy plastic drawer. With its ergonomic handle, the drawer is very easy for you to open, day in, day out.



**Side-by-side set white**  
Using the side-by-side set, two appliances can be placed next to each other. The required gap between the appliances is maintained, and they are neatly connected by the cover strip. This ensures tidy installation and avoids any condensation or water between the appliances.



**Castors**  
The sturdy castors facilitate transport and allow quick cleaning underneath and behind the appliance. A total of four castors including mounting accessories are supplied. Two of the castors also have a locking brake.



## Pharmaceutical refrigerators – medical refrigeration solutions with maximum safety

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Temperature-sensitive medicines, vaccines and samples must be stored in the most reliable conditions. To be available whenever they are needed, they must be stored round the clock in maximum safety.

Liebherr pharmaceutical refrigerators compliant with DIN 13277 have been specially designed for these particular requirements. With their dynamic cooling system, highly effective insulation and precise temperature control, they guarantee absolutely reliable storage of sensitive substances and preparations. Visual and audible alarm systems provide additional safety.

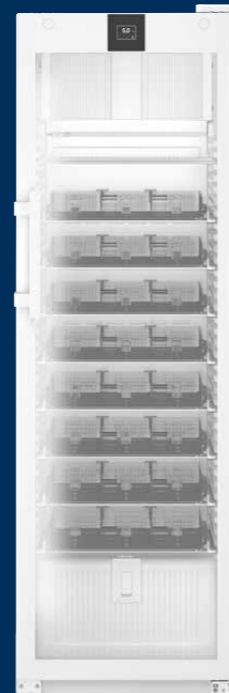
The combination of maximum temperature stability, energy efficiency, robustness and ease of use lightens your daily workload – and saves you money in the long term because of the extremely low energy and operating costs.



# Pharmaceutical refrigerators



MediLine



Perfection series

	<b>MediLine</b> Pharmaceutical storage MKUv	<b>Perfection series</b> Pharmaceutical storage HMFvh
<b>Temperature stability</b>	Refrigerators +/-3 K deviation from setpoint	Refrigerators +/-2 K deviation from setpoint (model version H63 +/-3 K)
	Calibration option	Calibration option
<b>Storage safety</b>	Visual and audible alarms	Visual and audible alarms
	Alarm relay	Alarm relay
	Alarm test function	Alarm test function
	+2 °C SafetyDevice function	+2 °C SafetyDevice function
	Alarm with battery backup (12 h) immediately upon power failure	Alarm with battery backup (12 h) immediately upon power failure
	Alarm history with real-time clock and 6 events	Alarm history with real-time clock and 10 events
	NTC product sensor	PT1000 product sensor
	Min./max. temperature log	Min./max. temperature log
	Fulfils DIN 13277	Fulfils DIN 13277
	Self-closing door at < 90°	Self-closing door at < 90°
	Custom alarm settings possible	Custom alarm settings possible
	Mechanical lock	Electronic lock
<b>Interfaces</b>	RS485 interface	Integrated LAN/WiFi
	Modbus RTU communication protocol	Local API
		USB interface for reading the data logger
<b>SmartMonitoring</b>	SmartCoolingHub can be retrofitted	SmartModule integrated
<b>Features</b>	LED 7-segment display with buttons	2.4" touch & swipe colour display
		Individually adjustable maintenance timer
	Castors/adjustable feet as accessories, 75 cm wide appliances with castors as standard	Castors/adjustable feet as accessories, 75 cm wide appliances with castors as standard
	Evaporator cover (stops items freezing to inner liner)	Evaporator cover (stops items freezing to inner liner)
	Sensor feedthrough	Sensor feedthrough
	Glass door models with ceiling lighting	Insulated and glass door models with vertical lighting
	Ergonomic slimline handle with opening mechanism	Antimicrobial handle with opening mechanism
<b>Energy consumption</b>		Ultra-efficient
<b>Compliance</b>	Safety according to IEC 60335-2-89	Safety according to IEC 61010-2-011

# The advantages at a glance

## +2 °C SafetyDevice

If the temperature falls below +2 °C due to a malfunction, the SafetyDevice takes control, stabilising the temperature, activating the alarm and protecting the contents from freezing.

## Power failure alarm

If a malfunction occurs, an integrated battery provides a visual and audible alarm and takes over the power supply. As soon as the power is restored, the time of failure and the maximum temperature reached are displayed.



## Vertical LED lighting

Vertical LED lighting provides optimal illumination of the interior over the entire height of the appliance. This not only saves you time looking for things, but, above all, cuts energy costs.

## LightAlarm

In the event of an uncontrolled temperature rise or other problems, the interior light of the appliance starts flashing. This quickly shows when action is needed.

## Easy-to-clean interior

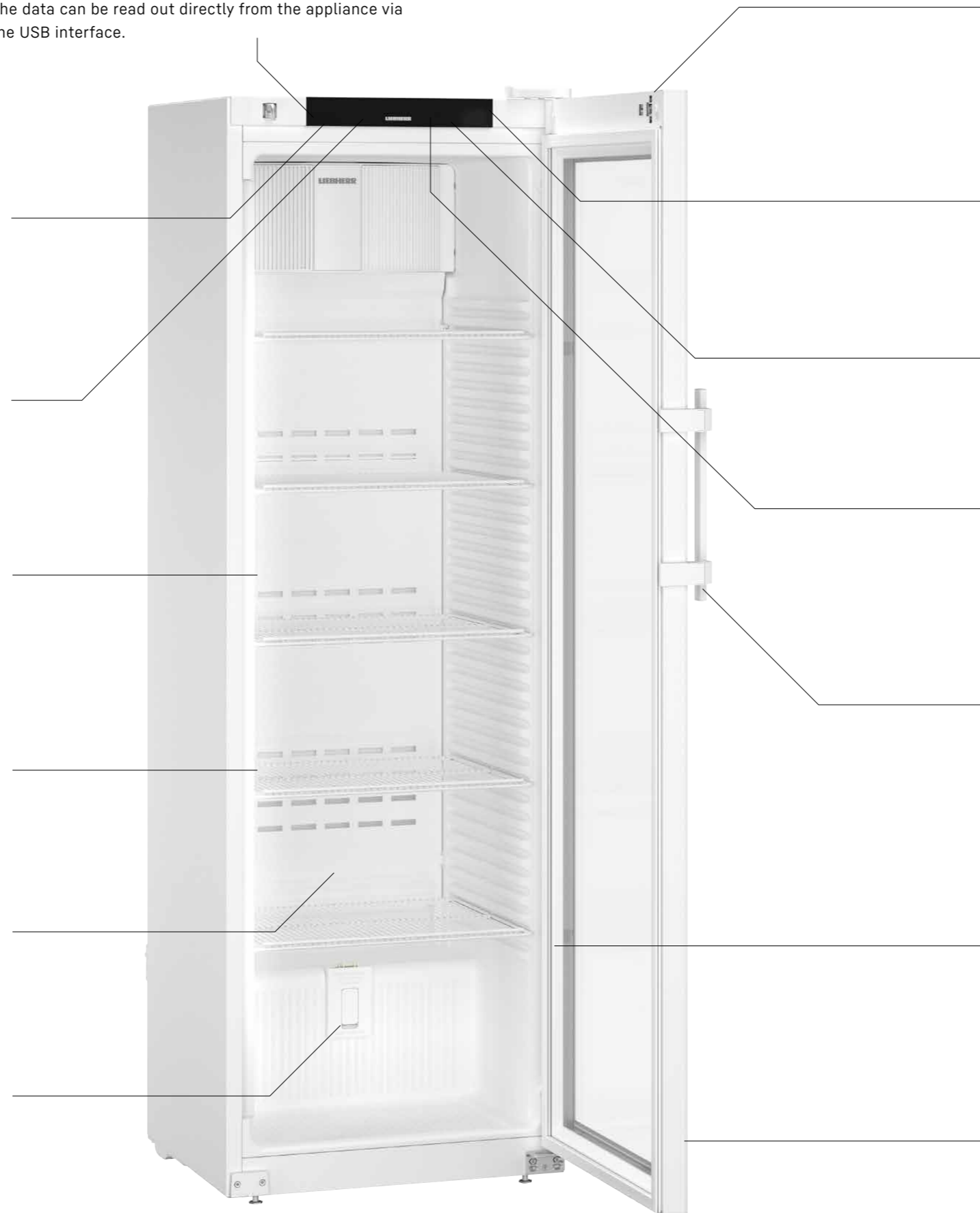
The inner liner made of fully recyclable, robust and odourless polystyrene is manufactured in one piece without joints. This makes it quick and easy to clean the large, rounded corners.

## Feedthrough for external sensors

An integrated opening allows a separate sensor to be connected for additional temperature monitoring without having to drill holes or break the door seal.

## Integrated data logger

The integrated logger records the temperature profile, alarm history and service information for up to five years. The data can be read out directly from the appliance via the USB interface.



HMfVh 4011 Perfection



## SmartLock

To prevent products from accidentally entering circulation after an interruption in the cold chain, SmartLock automatically locks the door if there is an alarm. Only authorised persons can unlock it again.

## SmartMonitoring

The cloud-based digital solution continuously monitors and documents temperatures and alerts you immediately via email, text message or phone if any deviations occur.

## Integrated WiFi/LAN interface

The integrated WiFi/LAN interface enables you to easily connect your appliances with Liebherr SmartMonitoring or existing local systems.

## Min./max. temperature log

The min./max. temperature log stores the minimum and maximum interior temperatures and shows on the display whether the storage temperatures were within the tolerance limits.

## Antimicrobial handle with opening mechanism

A benefit for users but a bane for germs: The easy-turn handle mechanism makes opening the door effortless. It contains special antimicrobial substances that reduce bacteria by up to 99.99%\*. Regular and time-consuming disinfection is not necessary. This means the appliance is extremely safe even if many people have access to it. \*According to ISO 22196:2011



## Replaceable door seal

Save time and money: the insertable Liebherr door seals are easy to change. If a seal is damaged, you can replace it yourself without any tools. Contact Liebherr Customer Service to purchase replacements.

## Self-closing door < 90°

To make loading, unloading and cleaning easier, the appliance door stays open if opened by more than 90°. If the opening angle is less than 90°, it closes automatically for safety.



## Quality right down to the smallest detail



### Pharmacy drawers

Optimal overview, easy access, high temperature stability: the practical organisational system made of cold-conducting aluminium comes with a transparent front, perforated base, flexible dividing walls and a ¾-extension drawer. Medicines, vaccines and other items can be quickly found – and the door closed again with minimal loss of cold air.



### Electronic lock with remote control

Liebherr appliances can be securely locked with a PIN code. Locking and unlocking via remote control is also possible. This allows any number of users to lock and unlock one or more appliances without having to share a key.



### Grid shelf with pull-out stop

Stable, durable, allows air to circulate: the robust, corrosion-free wire shelves made from coated steel support even heavy goods. At the same time, they guarantee constant air circulation for temperature stability. A pull-out stop prevents the shelf from sliding out when removing items.



### Ultra-efficient

Energy-efficient refrigerators and freezers help with ever increasing electricity prices. Liebherr fully utilises the savings potential of every component – from the compressor to the seal, to the lighting and electronics. The ultra-efficient appliances in the Perfection series for example demonstrates how this has a positive effect on your overall operating costs.



### ±2 °C temperature stability

Temperature fluctuations must be minimal to ensure that the quality of sensitive substances is preserved. Liebherr Pharmaceutical refrigerators have an impressive maximum deviation of just ±2 °C from the set temperature. This not only maintains the storage climate, but also the value of your stored goods. (Model version H63 with temperature stability +/-3 K).



### DIN 13277 compliance

Laboratory and pharmacy refrigerators from Liebherr meet all the necessary equipment and performance criteria to fully comply with DIN 13277. DIN 13277 defines the requirements and test specifications for refrigerators and freezers used in laboratories and for storing medicinal products.



### IEC 61010-2-011

Liebherr refrigerators and freezers specially developed for storing temperature-sensitive products are CE safety-compliant. This ensures that all mechanical and electrical requirements for injury-free operation are met – and that you and your team are always safe.



Pharmaceutical refrigerators compliant with DIN 13277



**HMFvh 4011**  
Perfection

Gross / net capacity	420 / 297 litre
Exterior dimensions in mm (w / d / h)	597 / 654 / 1884
Interior dimensions in mm (w / d / h)	460 / 423 / 1660
Energy consumption in 365 days <sup>1</sup>	389 kWh
Ambient temperature range	+10 °C to +35 °C
Heat output	463 kJ/h
Refrigerant	R 600a
Sound power level	49 dB(A)
Voltage / frequency	220 – 240V~ / 50 Hz
Connection rating / Rated consumption watts	2.0 A / 180 W
Cooling system / Defrost	forced-air / automatic
Temperature range	+5 °C
Gradient <sup>2</sup> / max. fluctuation <sup>3</sup>	3.0 °C / 2.4 °C
External cabinet finish	steel / white
Door material	glass
Internal liner material	commercial grade moulded polystyrol
Type of control	2.4" touch & swipe colour display
Power failure alarm	immediately upon power failure for at least 12 hrs
Fault: warning signal / Volt-free alarm contact	visual and audible / yes
SmartMonitoring compatible / Connectivity type	yes / SmartModule
Connectivity solution / Interface	integrated, removable / WiFi/LAN
Data logger	integrated, USB interface
Interior light	vertical LED light strip recessed in left wall with separate switch
Number of shelves / Adjustable shelves	6 / 5
Shelf material	wire shelves plastic-coated
Usable shelf area in mm (w / d)	460 / 423
Shelf loading / Maximum total load	45 kg / 225 kg
Handle	antimicrobial handle with opening mechanism
Access ports	1 x Ø 10 mm
DIN 13277	yes
Type of lock / Door hinges	electronic, with remote control / right, reversible on site
Gross / net weight	87 / 83 kg
Accessories	
White grid shelf	7113308
White base grid / Glass shelf	7113312 / 9293493
Perforated metal shelf, white	9029022
Scanner rail	7435208
Castors Ø 80 mm / Ø 100 mm	
Adjustable feet, 90 – 120 mm / 150 – 180 mm	9080022 / 9086924
Side-by-Side set in white	9006786
Additional remote controls	6123395
Digital input for electronic lock	9086958



**HMFvh 4001**  
Perfection

Gross / net capacity	394 / 295 litre
Exterior dimensions in mm (w / d / h)	597 / 654 / 1884
Interior dimensions in mm (w / d / h)	460 / 423 / 1660
Energy consumption in 365 days <sup>1</sup>	172 kWh
Ambient temperature range	+10 °C to +35 °C
Heat output	250 kJ/h
Refrigerant	R 600a
Sound power level	49 dB(A)
Voltage / frequency	220 – 240V~ / 50 Hz
Connection rating / Rated consumption watts	2.0 A / 180 W
Cooling system / Defrost	forced-air / automatic
Temperature range	+5 °C
Gradient <sup>2</sup> / max. fluctuation <sup>3</sup>	2.4 °C / 2.2 °C
External cabinet finish	steel / white
Door material	steel
Internal liner material	commercial grade moulded polystyrol
Type of control	2.4" touch & swipe colour display
Power failure alarm	immediately upon power failure for at least 12 hrs
Fault: warning signal / Volt-free alarm contact	visual and audible / yes
SmartMonitoring compatible / Connectivity type	yes / SmartModule
Connectivity solution / Interface	integrated, removable / WiFi/LAN
Data logger	integrated, USB interface
Interior light	LED lighting column, left
Number of shelves / Adjustable shelves	6 / 5
Shelf material	wire shelves plastic-coated
Usable shelf area in mm (w / d)	460 / 423
Shelf loading / Maximum total load	45 kg / 225 kg
Handle	antimicrobial handle with opening mechanism
Access ports	1 x Ø 10 mm
DIN 13277	yes
Type of lock / Door hinges	electronic, with remote control / right, reversible on site
Gross / net weight	73 / 64.5 kg
Accessories	
White grid shelf	7113308
White base grid / Glass shelf	7113312 / 9293493
Perforated metal shelf, white	9029022
Scanner rail	7435208
Castors Ø 80 mm / Ø 100 mm	
Adjustable feet, 90 – 120 mm / 150 – 180 mm	9086926 / 9080023
Side-by-Side set in white	9080022 / 9086924
Additional remote controls	9006786
Digital input for electronic lock	6123395
Digital input for electronic lock	9086958

Pharmaceutical refrigerators compliant with DIN 13277



**MKUv 1613**  
MediLine

Gross / net capacity	152 / 109 litre
Exterior dimensions in mm (w / d / h)	601 / 618 / 820
Interior dimensions in mm (w / d / h)	440 / 435 / 670
Energy consumption in 365 days <sup>1</sup>	408 kWh
Ambient temperature range	+10 °C to +35 °C
Heat output	438 kJ/h
Refrigerant	R 600a
Sound power level	47 dB(A)
Voltage / frequency	220 – 240V~ / 50 Hz
Connection rating	1.0 A
Rated consumption watts	130 W
Cooling system	forced-air
Defrost	automatic
Temperature range	+5 °C
Gradient <sup>2</sup> / max. fluctuation <sup>3</sup>	5.1 °C / 4.9 °C
External cabinet finish	steel / white
Door material	glass door
Internal liner material	commercial grade moulded polystyrol
Type of control	LED 7-segment display with buttons
Power failure alarm	immediately upon power failure for at least 12 hrs
Fault: warning signal	visual and audible
Volt-free alarm contact	yes
SmartMonitoring compatible	yes
Connectivity type	SmartCoolingHub
Connectivity solution	retrofittable
Interface	RS485
Interior light	LED ceiling light strip with separate switch
Number of shelves / Adjustable shelves	4 / 3
Shelf material	wire shelves plastic-coated
Usable shelf area in mm (w / d)	440 / 420
Shelf loading	45 kg
Handle	slimline handle with integrated opening mechanism
Access ports	1 x Ø 10 mm
DIN 13277	yes
Type of lock	mechanical
Door hinges	right, reversible on site
Gross / net weight	48 / 45 kg
Accessories	
White grid shelf	7113333
Stacking kit, white	9592697
Roller bars	9590521
SmartCoolingHub	6125784
Additional lock barrels (up to 10)	on request



**MKUv 1610**  
MediLine

Gross / net capacity	142 / 109 litre
Exterior dimensions in mm (w / d / h)	601 / 618 / 820
Interior dimensions in mm (w / d / h)	440 / 435 / 670
Energy consumption in 365 days <sup>1</sup>	273 kWh
Ambient temperature range	+10 °C to +35 °C
Heat output	184 kJ/h
Refrigerant	R 600a
Sound power level	47 dB(A)
Voltage / frequency	220 – 240V~ / 50 Hz
Connection rating	1.0 A
Rated consumption watts	100 W
Cooling system	forced-air
Defrost	automatic
Temperature range	+5 °C
Gradient <sup>2</sup> / max. fluctuation <sup>3</sup>	4.3 °C / 4.6 °C
External cabinet finish	steel / white
Door material	steel
Internal liner material	commercial grade moulded polystyrol
Type of control	LED 7-segment display with buttons
Power failure alarm	immediately upon power failure for at least 12 hrs
Fault: warning signal	visual and audible
Volt-free alarm contact	yes
SmartMonitoring compatible	yes
Connectivity type	SmartCoolingHub
Connectivity solution	retrofittable
Interface	RS485
Interior light	
Number of shelves / Adjustable shelves	4 / 3
Shelf material	wire shelves plastic-coated
Usable shelf area in mm (w / d)	440 / 420
Shelf loading	45 kg
Handle	slimline handle with integrated opening mechanism
Access ports	1 x Ø 10 mm
DIN 13277	yes
Type of lock	mechanical
Door hinges	right, reversible on site
Gross / net weight	42 / 39 kg
Accessories	
White grid shelf	7113333
Stacking kit, white	9592697
Roller bars	9590521
SmartCoolingHub	6125784
Additional lock barrels (up to 10)	on request

<sup>1</sup> Measured at +25°C ambient temperature and +5°C set temperature for fridges and -20°C for freezers.

<sup>2</sup> Gradient as defined in EN 60068-3: the difference between the warmest and coldest average measurements, increased by their expanded uncertainty, throughout the duration.

<sup>3</sup> Max. fluctuation as per EN 60068-3: greatest fluctuation value determined throughout the duration of measurements.

<sup>1</sup> Measured at +25°C ambient temperature and +5°C set temperature for fridges and -20°C for freezers.

<sup>2</sup> Gradient as defined in EN 60068-3: the difference between the warmest and coldest average measurements, increased by their expanded uncertainty, throughout the duration.

<sup>3</sup> Max. fluctuation as per EN 60068-3: greatest fluctuation value determined throughout the duration of measurements.

Pharmaceutical refrigerators compliant with DIN 13277



**Glass shelf**  
Additional shelves made of high-quality safety glass not only increase storage space but also make it easier to see the goods. They are ideal for storing smaller containers or materials. In addition, the shatterproof glass shelves are quick and easy to clean.



**Grid shelf white**  
If you need more storage space or want to separate stored products and have a better overview, Liebherr appliances can be equipped with additional grid shelves. Made of metal with a polypropylene coating, they are identical to the ones that come as standard in the appliances and you benefit from the same corrosion-resistant and durable extra shelving.



**Base grid white**  
With the sturdy base grid, you can also make the most of the appliance floor. The grid has an abrasion-resistant coating and protects the inner liner from scratches and other damage.



**Height-adjustable feet**  
The height-adjustable feet create the necessary clearance for easy cleaning under the appliance. With an individually adjustable height of 90 to 120 mm, they perfectly compensate for any unevenness on the floor.



**Roller bars**  
The sturdy castors within the roller bars have a diameter of 25 mm (total height 30 mm) to facilitate transport and allow cleaning underneath and behind the appliance. Two roller sets including mounting accessories are supplied.



**Special locking**  
To protect the stored products from unwanted access, up to 10 additional special locks are available as accessories for the refrigerators and freezers. This way, different locks can be installed on several appliances so that only the people responsible for a particular appliance have access to it.



**Remote control electronic door lock**  
With additional remote controls for refrigerators and freezers with electronic door locks, you can allow other people to access stored goods while retaining full control at all times. For example, you can individually control whether renewed access should be granted or denied to a person by activating or deactivating their remote control.



**Stacking kit**  
The stacking kit can be used to combine two refrigerators or refrigerators and freezers. This way, different temperature zones are available on a small surface area.



**Digital input for electronic lock**  
The digital input for the electronic lock allows Liebherr appliances to be integrated into existing external time and attendance or access control systems. When a voltage signal triggers the remote box, the electronic lock opens and allows access to the appliance. Possible applications include connection to access control systems or integration into goods management applications.

Pharmaceutical refrigerators compliant with DIN 13277



**SmartCoolingHub**  
The SmartCoolingHub provides the basis for connecting your professional Liebherr appliances. Up to 20 network-capable Liebherr appliances can be connected via cable.



**Perforated metal shelf white**  
To ensure that even small items are stored stably in the refrigeration appliances, Liebherr has developed shallow perforated metal shelves especially for this purpose. They are made of coated metal and designed for a maximum load of up to 45 kg. The perforation ensures unhindered air circulation throughout the storage space.



**Flexible scanner rail**  
Scanner rails provide a perfect overview of the materials stored in the refrigerator. Thanks to their flexibility, they can be easily attached to the front of the grid shelves. With correspondingly marked paper cards, they make it easy to sort and find stored products.



**Castors**  
The sturdy castors facilitate transport and allow quick cleaning underneath and behind the appliance. A total of four castors including mounting accessories are supplied. Two of the castors also have a locking brake.



**Side-by-Side set white**  
Using the side-by-side set, two appliances can be placed next to each other. The required gap between the appliances is maintained, and they are neatly connected by the cover strip. This ensures tidy installation and avoids any condensation or water between the appliances.



## SmartMonitoring saves you work. And worry.

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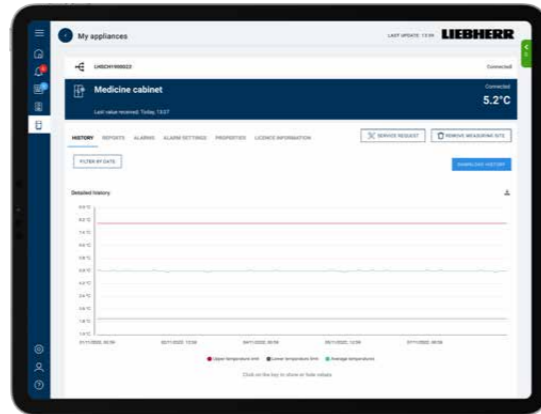
In medicine and research, precision and safety are of the utmost priority – and this also applies to storing sensitive substances. Laboratory samples, vaccines and medicines that have to be refrigerated require constant conditions with precisely defined temperature ranges. The strict specifications and DIN standards on the storage of medicines place great demands on staff.

SmartMonitoring significantly relieves the workload for these time-consuming and laborious duties. The digital monitoring solution automatically and continuously monitors and fully documents all the relevant temperature data and appliance data for you and alerts you immediately if any deviations occur. This leaves you to concentrate of what matters most: your research, your customers, or your patients.



# Maximum safety, always in view

The combination of a professional Liebherr appliance and intelligent SmartMonitoring software guarantees optimal protection for sensitive substances. The cloud-based solution monitors and documents temperature stability round the clock and alerts you immediately if deviations occur. Preventing problems before they arise is the definition of maximum safety.



## Continuous monitoring of precise, constant temperature

SmartMonitoring constantly checks the storage temperature, even for multiple appliances at different locations. This way, the digital monitoring solution ensures precise temperature stability at all times, safeguarding the quality of your stored medicines, vaccines, samples and tissue.

## Well protected in all situations with the right alarm

If the appliance is accidentally switched off or disconnected from the power supply or the internet connection drops, SmartMonitoring alerts you immediately.

In addition, you can individually set a temperature limit value via SmartMonitoring, giving you time to react even earlier if necessary.

## Complete documentation without time-consuming paperwork

SmartMonitoring constantly documents the temperature and all other refrigeration parameters for your stored substances. The automatically generated reports are saved for six months and can be viewed and downloaded at any time. This lightens the daily workload and helps you to demonstrate compliance.

## Maximum safety and convenience with SmartMonitoring

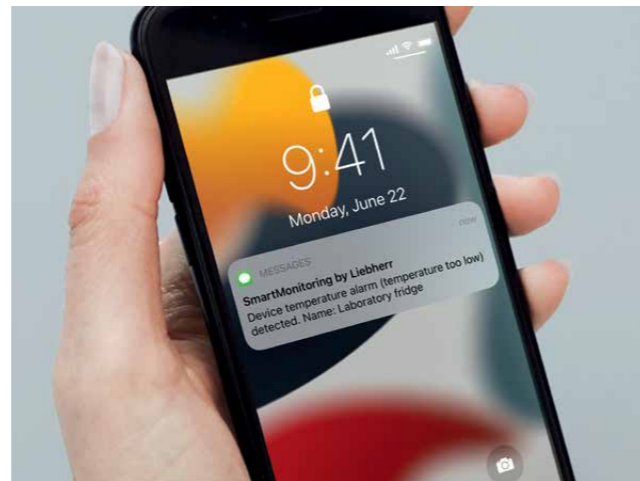
Enjoy the advantages of Liebherr's digital monitoring solution:

- **Optimal protection of your valuable products** by monitoring a constant, precise storage temperature
- **Fully documented proof of temperature compliance**
- **Prevention of damage and loss of quality** thanks to reliable alarm systems
- **More time for you to focus on your work** by eliminating time-consuming checks and documentation



## SmartMonitoring dashboard – everything at a glance

You can view all measurements and temperature data, alarm notifications and appliance statuses at any time on the web-based, intuitively operated SmartMonitoring dashboard, even for multiple appliances at different locations. With maximum safety always in view, you can relax and concentrate fully on your work.



## Immediate alerts in the event of deviations

If there are deviations in the storage temperature, you are immediately alerted by email, text message, or phone. This way, you can react before problems arise. If an incident occurs, the alarm list will show the minimum and maximum values so that you can assess any potential for damage.

## External data loggers enable universal expansion of your SmartMonitoring solution

To efficiently expand the SmartMonitoring range, Liebherr appliances that were not previously compatible with SmartMonitoring and even non-Liebherr appliances can now be monitored with SmartMonitoring by integrating external data loggers.

The different data logger types reliably monitor deviations and door openings, as well as product, appliance, room and air temperatures. Even at ultra-low temperatures, you are protected thanks to a specially designed data logger.

Take advantage of a universal product solution that offers you additional flexibility and maximum reliability.

The **availability** of SmartMonitoring varies in different countries.

If SmartMonitoring isn't available in your country yet, get in contact with us.

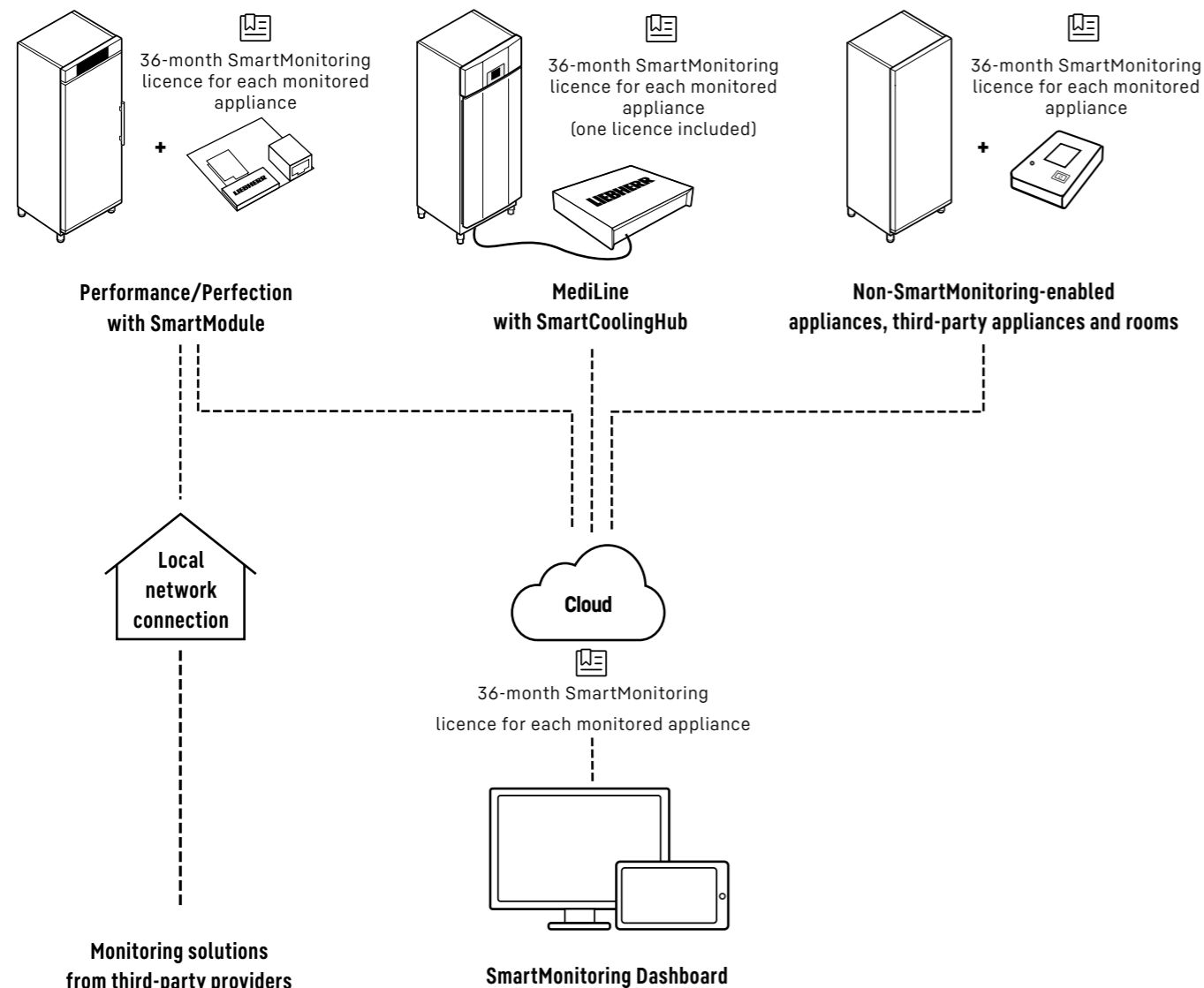


Find out more about SmartMonitoring here: [home.liebherr.com/smartmonitoring](http://home.liebherr.com/smartmonitoring)

# SmartMonitoring – it's that easy to be on the safe side.

There are various ways to enjoy all of the benefits of the digital monitoring solution. One thing they all have in common is that they are simple and convenient. Liebherr will be happy to help you take your first steps towards maximum safety. Lightening your workload right from the very start.

## Network-capable medical or laboratory appliance



## Get your licence to chill.

With the right licence, you can take full advantage of the professional SmartMonitoring solutions from Liebherr. This includes all the basic functions such as monitoring, documentation and email alerts.

- 36-month term from activation
- No automatic extension
- One licence per monitored appliance (fridge/freezer)
- Authorisation for any number of users
- User and appliance management (role-based)
- Additional alerts via text message and phone optionally available

Extend your guarantee to 5 years for free - with every SmartMonitoring appliance licence.



Scan here to find out more



### SmartCoolingHub

The SmartCoolingHub provides the basis for connecting your professional Liebherr appliances from the MediLine series. Up to 20 network-capable Liebherr appliances can be linked via cable.



### SmartModule

SmartModule connects Liebherr appliances of the Performance series to SmartMonitoring or existing monitoring systems. The small unit with integrated LAN/WiFi is ready to use as soon as it is mounted on the back of the appliance.



### Local interface

Liebherr appliances can also be used with existing monitoring solutions. The SmartModule acts as a local interface for transferring measurement data to your existing monitoring system.



### Data logger, temperature

The standard online data logger reliably records temperature data and transmits it directly to SmartMonitoring via a WiFi connection.



### Data logger, three-channel

In addition to the standard temperature sensor, the three-channel data logger features an additional temperature sensor which can be used to monitor the temperature of sensitive products, as well as a door contact sensor.



### Data logger, ULT

For reliable storage at extreme temperatures, this data logger has a special temperature sensor for temperature ranges as low as -200 °C, so that all cooling situations can be covered with a single solution.



“SmartMonitoring takes care of refrigeration for us. It’s one less thing to worry about.”



The outpatient centre of Söflingen day clinic treats around 30 patients every day in three operating theatres, which includes providing medication. To ensure their effectiveness, reliable cooling of the medicines must be guaranteed at all times. SmartMonitoring takes over this time-consuming and stressful task at the clinic.

The pharmaceutical fridge combined with SmartMonitoring from Liebherr lightened the workload as soon as it was installed.

Complex and time-consuming tasks that SmartMonitoring performs at Söflingen day clinic:

1. Monitoring the precisely set temperature
2. Sending alarms via email, text message or phone if temperature fluctuations occur
3. Documenting storage conditions and clearly presenting all the relevant data on the SmartMonitoring dashboard
4. Ensuring that the stored medicines are refrigerated at a constant, precise temperature and are always available for use



Watch the case study video for more information

Dr. Jana Wichmann, manager of the Söflingen day clinic

“When the fridge arrived, a team came along to set everything up. And it all works perfectly!”

“We love SmartMonitoring because it lets us concentrate on what really matters: emergency medicine.”



The German Red Cross has nine ambulance stations in Ulm and Heidenheim, with 400 employees and 50 vehicles. The medicines have to be kept refrigerated with maximum safety to be constantly available for use in an emergency. This is ensured by reliable pharmaceutical refrigerators as well as SmartMonitoring from Liebherr, which guarantees maximum storage safety at all the sites.

SmartMonitoring is in use day and night for safe storage and to lighten the workload at the ambulance station in Ulm:

1. Continuously monitoring temperature stability
2. Sending alarms via email, text message or phone if deviations occur
3. Automatically documenting and generating reports on all relevant data
4. User-friendly presentation of the data on the dashboard



Watch the case study video for more information

Lars Grau, Head of Materials management and Medical devices

“SmartMonitoring makes it possible to incorporate several ambulance stations in the system and monitor them all from one place.”