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

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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.

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.

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.
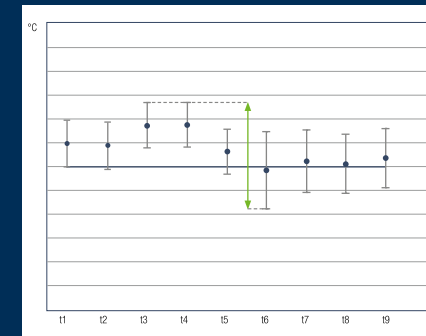
LKPv 6520 MediLine

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

Quality right down to the smallest detail

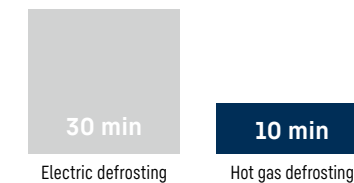**Maximum temperature stability**
The dynamic cooling system with double ventilation ensures maximum temperature stability in the interior. Very short defrost cycles allow the interior temperature to be kept almost constant during the defrost phases. All the laboratory appliances are designed for temperature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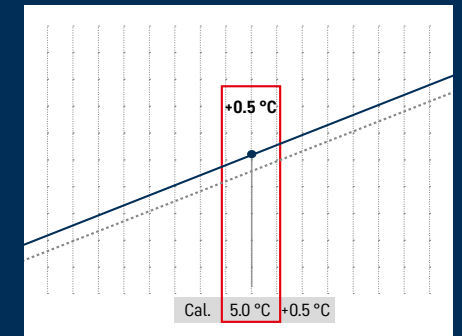

Energy-efficient hot gas defrosting
Timed and on-demand hot gas defrosting allows very short defrosting times. To additionally improve temperature stability during defrosting, the internal temperature is slightly lowered shortly beforehand to create a reserve of cold air.

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.

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.

	LKPv 1423 MediLine	LKPv 1420 MediLine	LKPv 8420 MediLine	LKPv 6523 MediLine	LKPv 6520 MediLine	LKPv 6527 MediLine
Gross / net capacity	1397 / 980 litre	1366 / 980 litre	855 / 629 litre	617 / 430 litre	602 / 430 litre	598 / 429 litre
Exterior dimensions in mm (w / d / h)	1430 / 830 / 2160	1430 / 830 / 2160	790 / 980 / 2160	700 / 830 / 2160	700 / 830 / 2160	700 / 830 / 2160
Interior dimensions in mm (w / d / h)	1236 / 650 / 1500	1236 / 650 / 1550	620 / 850 / 1550	533 / 650 / 1500	533 / 650 / 1550	533 / 650 / 1550
Energy consumption in 365 days [1]	820 kWh	714 kWh	603 kWh	571 kWh	497 kWh	688 kWh
Ambient temperature range	+10°C to +40°C	+10°C to +40°C	+10°C to +40°C	+10°C to +40°C	+10°C to +40°C	+10°C to +40°C
Heat output	515 kJ/h	471 kJ/h	430 kJ/h	345 kJ/h	300 kJ/h	345 kJ/h
Refrigerant	R 290	R 290	R 290	R 290	R 290	R 290
Sound power level	58 dB(A)	58 dB(A)	58 dB(A)	58 dB(A)	58 dB(A)	58 dB(A)
Voltage / Connection rating	220 – 240V~ / 4.0 A	220 – 240V~ / 4.0 A	220 – 240V~ / 4.0 A	220 – 240V~ / 4.0 A	220 – 240V~ / 4.0 A	220 – 240V~ / 4.0 A
Cooling system	forced-air	forced-air	forced-air	forced-air	forced-air	forced-air
Defrost	automatic	automatic	automatic	automatic	automatic	automatic
Temperature range	0°C to +16°C	-2°C to +16°C	-2°C to +16°C	0°C to +16°C	-2°C to +16°C	-2°C to +16°C
Gradient [2] / max. fluctuation [3]	3.8°C / 3.9°C	3.6°C / 2.9°C	2.1°C / 1.8°C	2.0°C / 1.6°C	1.8°C / 1.0°C	1.8°C / 1.0°C
External cabinet finish	steel / white	steel / white	steel / white	steel / white	steel / white	steel / white
Door material	glass door	steel	steel	glass door	steel	steel
Internal liner material	304-grade stainless steel	304-grade stainless steel	304-grade stainless steel	304-grade stainless steel	304-grade stainless steel	304-grade stainless steel
Type of control	LED 7-segment display with buttons	LED 7-segment display with buttons	LED 7-segment display with buttons	LED 7-segment display with buttons	LED 7-segment display with buttons	LED 7-segment display with buttons
Power failure alarm	immediately upon power failure for 72 hrs	immediately upon power failure for 72 hrs	immediately upon power failure for 72 hrs	immediately upon power failure for 72 hrs	immediately upon power failure for 72 hrs	immediately upon power failure for 72 hrs
Fault: warning signal	visual and audible	visual and audible	visual and audible	visual and audible	visual and audible	visual and audible
Volt-free alarm contact	yes	yes	yes	yes	yes	yes
Connectivity type	SmartCoolingHub	SmartCoolingHub	SmartCoolingHub	SmartCoolingHub	SmartCoolingHub	SmartCoolingHub
Connectivity solution	Retrofittable	Retrofittable	Retrofittable	Retrofittable	Retrofittable	Retrofittable
Interface	RS485	RS485	RS485	RS485	RS485	RS485
Interior light	LED ceiling light strip with separate switch			LED ceiling light strip with separate switch		
Adjustable shelves	8	8	4	4	4	4
Shelf material	wire shelves plastic-coated	wire shelves plastic-coated	wire shelves plastic-coated	wire shelves plastic-coated	wire shelves plastic-coated	wire shelves plastic-coated
Usable shelf area in mm (w / d)	1236 / 640	1236 / 640	620 / 800	533 / 650	533 / 650	533 / 650
Shelf loading	60 kg	60 kg	60 kg	60 kg	60 kg	60 kg
Castors	castors with brake at the front, castors at the rear	castors with brake at the front, castors at the rear	castors with brake at the front, fixed castors at the rear	castors with brake at the front, fixed castors at the rear	castors with brake at the front, fixed castors at the rear	castors with brake at the front, fixed castors at the rear
Handle	full-length integrated handle	full-length integrated handle	full-length integrated handle	full-length integrated handle	full-length integrated handle	full-length integrated handle
Access ports	1 x Ø 7 mm	1 x Ø 7 mm	1 x Ø 7 mm	1 x Ø 7 mm	1 x Ø 7 mm	1 x Ø 7 mm
Type of lock	mechanical	mechanical	mechanical	mechanical	mechanical	mechanical
Door hinges	left hand / right hand	left hand / right hand	right, reversible on site	right, reversible on site	right, reversible on site	right, reversible on site
Gross / net weight	267 / 224 kg	249 / 206 kg	175 / 145 kg	164 / 138 kg	154 / 128 kg	155 / 130 kg
Accessories						
Shelf, plastic-coated	7112393	7112393	7113643	7112393	7112393	7112393
U-shaped trayslide, right	9001761	9001761	9005089	9001761	9001761	9001761
U-shaped trayslide, left	9001757	9001757	9005077	9001757	9001757	9001757
Foot pedal opener	9590639	9590639	9590659	9590659	9590659	9590659
SmartCoolingHub	6125784	6125784	6125784	6125784	6125784	6125784
Product temperature sensor	9590407	9590407	9590407	9590407	9590407	9590407
Side-by-Side set	9901947	9901947	9901947	9901947	9901947	

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

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

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

Research and laboratory

LGPv 1420
MediLine [Smart Monitoring]

LGPv 8420
MediLine [Smart Monitoring]

	LGPv 1420	LGPv 8420
Gross / net capacity	1366 / 980 litre	855 / 629 litre
Exterior dimensions in mm (w / d / h)	1430 / 830 / 2160	790 / 980 / 2160
Interior dimensions in mm (w / d / h)	1236 / 650 / 1550	620 / 850 / 1550
Energy consumption in 365 days [1]	2654 kWh	1739 kWh
Ambient temperature range	+10°C to +40°C	+10°C to +40°C
Refrigerant	R 290	R 290
Sound power level	60 dB(A)	60 dB(A)
Voltage / Connection rating	220 – 240V~ / 4.0 A	220 – 240V~ / 4.0 A
Cooling system	forced-air	forced-air
Defrost	automatic	automatic
Temperature range	–9°C to –26°C	–9°C to –35°C [2]
Gradient [3] / max. fluctuation [4]	4.3°C / 6.7°C	4.5°C / 5.7°C
External cabinet finish	steel / white	steel / white
Door material	steel	steel
Internal liner material	304-grade stainless steel	304-grade stainless steel
Type of control	LED 7-segment display with buttons	LED 7-segment display with buttons
Power failure alarm	immediately upon power failure for 72 hrs	immediately upon power failure for 72 hrs
Fault: warning signal	visual and audible	visual and audible
Volt-free alarm contact	yes	yes
Connectivity type	SmartCoolingHub	SmartCoolingHub
Connectivity solution	Retrofittable	Retrofittable
Interface	RS485	RS485
Adjustable shelves	8	4
Shelf material	wire shelves plastic-coated	wire shelves plastic-coated
Usable shelf area in mm (w / d)	1236 / 640	620 / 800
Shelf loading	60 kg	60 kg
Castors	castors with brake at the front, castors at the rear	castors with brake at the front, fixed castors at the rear
Handle	full-length integrated handle	full-length integrated handle
Type of lock	mechanical	mechanical
Door hinges	left hand / right hand	right, reversible on site
Gross / net weight	254 / 209 kg	182 / 150 kg
Accessories		
Shelf, plastic-coated	7112393	7113643
U-shaped trayslide, right	9001761	9005089
U-shaped trayslide, left	9001757	9005077
Foot pedal opener	9590639	9590659
SmartCoolingHub	6125784	6125784
Product temperature sensor	9590407	9590407
Side-by-Side set	9901947	9901947

LGPv 6520
MediLine [Smart Monitoring]

LGPv 6527
MediLine [Smart Monitoring]

	LGPv 6520	LGPv 6527
Gross / net capacity	602 / 430 litre	598 / 429 litre
Exterior dimensions in mm (w / d / h)	700 / 830 / 2160	700 / 830 / 2160
Interior dimensions in mm (w / d / h)	533 / 650 / 1550	533 / 650 / 1550
Energy consumption in 365 days [1]	1367 kWh	2019 kWh
Ambient temperature range	+10°C to +40°C	+10°C to +40°C
Refrigerant	R 290	R 290
Sound power level	60 dB(A)	60 dB(A)
Voltage / Connection rating	220 – 240V~ / 4.0 A	220 – 240V~ / 4.0 A
Cooling system	forced-air	forced-air
Defrost	automatic	automatic
Temperature range	–9°C to –35°C [2]	–9°C to –35°C [2]
Gradient [3] / max. fluctuation [4]	2.9°C / 3.6°C	2.9°C / 3.6°C
External cabinet finish	steel / white	steel / white
Door material	steel	steel
Internal liner material	304-grade stainless steel	304-grade stainless steel
Type of control	LED 7-segment display with buttons	LED 7-segment display with buttons
Power failure alarm	immediately upon power failure for 72 hrs	immediately upon power failure for 72 hrs
Fault: warning signal	visual and audible	visual and audible
Volt-free alarm contact	yes	yes
Connectivity type	SmartCoolingHub	SmartCoolingHub
Connectivity solution	Retrofittable	Retrofittable
Interface	RS485	RS485
Adjustable shelves	4	4
Shelf material	wire shelves plastic-coated	wire shelves plastic-coated
Usable shelf area in mm (w / d)	533 / 650	533 / 650
Shelf loading	60 kg	60 kg
Castors	castors with brake at the front, fixed castors at the rear	castors with brake at the front, fixed castors at the rear
Handle	full-length integrated handle	full-length integrated handle
Type of lock	mechanical	mechanical
Door hinges	right, reversible on site	right, reversible on site
Gross / net weight	162 / 136 kg	160 / 134 kg
Accessories		
Shelf, plastic-coated	7112393	7112393
U-shaped trayslide, right	9001761	9001761
U-shaped trayslide, left	9001757	9001757
Foot pedal opener	9590659	9590659
SmartCoolingHub	6125784	6125784
Product temperature sensor	9590407	9590407
Side-by-Side set	9901947	

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

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