

Research and Laboratory  
Refrigerators and Freezers



**LIEBHERR**

Quality, Design and Innovation

# Research and Laboratory Refrigerators and Freezers

Liebherr refrigerators and freezers adhere to the most stringent of research and laboratory requirements, including consistent safety and temperature settings. Liebherr appliances are equipped with various features and technologies that ensure the optimal storage of sensitive samples, critical chemicals, and research materials. Features like a precision electronic control enable accurate temperature settings, creating optimal storage conditions, alongside highly effective insulation and dynamic cooling systems. Integrated visual and audible alarm systems warn the user of undesired temperature deviations, ensuring essential safety measures 24 hours a day, 365 days a year.





# It's not just a fridge – it's a Liebherr!

Liebherr is one of the world's leading manufacturers of premium commercial refrigeration, specializing in performance and efficiency, as well as keeping stored samples and materials under the most stringent temperature and safety requirements.

Our superior products offer premium quality, cutting edge design, and innovate features that best fit your research and scientific needs.

## Ingenuity at its finest

For more than 60 years, Liebherr has specialized in developing and manufacturing first class refrigerators and freezers. An array of compelling innovative ideas are continuously implemented into our efficient products to enhance preservation, improve ease of use, and save energy.

# Performance and Efficiency for Years to Come

High quality materials, perfectly detailed finishes, and elite cooling components are combined with the latest production processes, resulting in an outstanding cooling product.

Liebherr appliances are engineered to accommodate a variety of design and installation options, allowing for flexibility within a laboratory's floor plan.

**HFC free**

Liebherr commercial appliances use R290 and R600a natural refrigerants which are eco-friendly and environmentally responsible, while providing greater energy efficiency.



|  |      |  |      |   |
|--|------|--|------|---|
| Introduction of Commercial Food Service and Scientific Appliances in North America | 2016 |  | 2017 | All Research & Laboratory appliances are HFC-free using R290 and R600a refrigerants |
| Pharmacy   | 2012 |  | 2014 | Supermarket   |
| Laboratory   | 2008 |  | 2011 | Introduction of Hot Gas Defrost   |
| Winner of ProCool Award  | 2006 |  | 2007 | Medium Commercial Freezing  |
| Bakery   | 2002 |  | 2004 | Explosion protection  |
| Display  | 1997 |  | 2000 | Medium Commercial Cooling   |
| Wine   | 1984 |  | 1987 | Ice Cream   |
| Beverage   | 1980 |  | 1981 | Commercial Cooling  |

# Global Success: Liebherr Corporate Group

Liebherr is a third-generation, family-owned company founded by Dr. Hans Liebherr in 1949 with the creation of the first ever mobile crane. With over 60 years of success, Liebherr has become synonymous with the equipment needed to build homes and businesses, as well as the appliances within them. One of the world's largest manufacturers of construction machinery, Liebherr has expanded to eleven divisions with a wide array of product ranges, including earth moving equipment, mining, tower and maritime cranes, aerospace and transportation systems, and hotels. Liebherr Group currently employs over 41,000 persons in more than 130 companies in over 50 countries worldwide. Liebherr Appliances is Europe's largest privately owned manufacturer of refrigerators and freezers for residential and commercial use, with an annual production of more than 2.1 million units.



Construction



Aerospace and Transportation Systems

Headquartered in Germany, Liebherr Appliances provides the widest range of European refrigeration and freezing products throughout the world. Liebherr's first steps into the Americas was in the early 1970's, later expanding Liebherr Appliances into North America in 2004. Liebherr Appliances in North America is located in Miami, Florida in the United States, and Burlington, Ontario in Canada.



Liebherr Appliances facility in Lienz, Austria



Mining



Cranes



Liebherr in Miami, Florida, USA



Liebherr in Burlington, Ontario, Canada

# Reasons to Choose Liebherr



## Highest Performance

Liebherr refrigerators and freezers for research and laboratory use provide consistent performance, even in extreme climate conditions. The use of ultra-modern components, efficient and environmentally-friendly refrigerants, and precision controls ensures that samples, chemicals, and research materials are stored optimally.

## Energy Efficient

Thanks to the precision electronic control and optimized refrigeration system, Liebherr commercial appliances are highly efficient, with very low energy consumption. In addition, highly effective insulation make the appliances environmentally friendly, while lowering operating and energy costs. Liebherr quality guarantees long life and reliable operation of all commercial appliances, along with economic and ecological sustainability.

## Reliability

All laboratory appliances are designed according to the IEC 60068-3 standard regarding maximum temperature stability. Liebherr commercial appliances are specially constructed for intensive professional use, featuring sturdy designs, the highest-quality materials, and perfect craftsmanship down to the smallest detail. Each Liebherr appliance is subject to elaborate tests prior to leaving the production facility. All electronic and refrigeration components are well balanced to ensure maximum functionality and efficiency, ideal for the storing of valuable and temperature-sensitive materials.

## Safety

To meet the most stringent reliability and temperature consistency requirements, Liebherr appliances are equipped with multiple alarm and monitoring features. A visual and audible door alarm alerts the user of any undesired temperature deviations. The units can also be connected via the volt-free contact to an external remote warning system. In addition, the calibration option allows for precise temperature control for adaptation to specific applications.

## Easy to Clean

Hygiene plays an important role in laboratories. For this reason, Liebherr appliances are equipped with high quality interior materials, with easy-to-clean and large rounded corners. Flush seals prevent condensation and the accumulation of dirt and dust. Sturdy casters also allow for easy cleaning of the floor space underneath the appliance. In appliances with stainless-steel interiors, the condensing unit is located in the top compartment, allowing for easy service access. The practical doors are equipped with a self-closing system for convenient, hands-free use.

## Easy Maintenance

Liebherr professional appliances are designed with the user in mind. The combination of sophisticated concepts and high-quality, durable materials ensures that Liebherr refrigerators and freezers are virtually maintenance-free and easy to operate. In appliances with stainless-steel interiors, the condensing unit is located within the top compartment, allowing for easy service access. In addition, the practical doors are equipped with a self-closing system for convenient, hands-free use.

# The Liebherr Advantage



Easy to open panels provide **easy access for servicing and cleaning.**

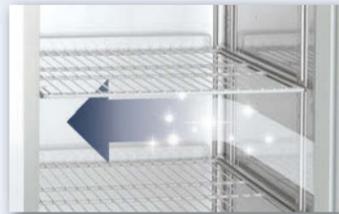


The electronic control allows for min/max temperature recording of up to 41 days for **easy logging of storage conditions.**



Laboratory appliances with electronic controls and top mounted cooling systems are equipped with an access port (7 mm / 9/32" in diameter) in the top compartment for **connecting independent temperature sensors.**

In case of power failure, the electronic control becomes automatically powered by an integrated 12V battery, allowing for **uninterrupted temperature logs for up to 72 hours.**



The smooth, stainless steel interior is **easy to clean for optimal hygiene.**

To **increase interior net capacity**, the condensing unit and refrigerant components are located outside the refrigerator and freezer compartments.



LRT and LFT models include casters as a standard, allowing for **versatile use within spaces**, as well as **convenient cleaning** of underneath the appliance.



Temperatures can be **set and kept to the exact degree** thanks to the electronic control.



After a refrigerator or freezer door has been opened, a vacuum is built up by air exchange – making the door difficult to reopen immediately afterwards. The integrated pressure relief valve ensures that the vacuum is quickly equalized so that the **doors will always open easily.**

**Visual and audible door alarms** can be set between 1 to 5 minutes, alerting if the door is open and of possible temperature variations.



Laboratory appliances with electronic controls are equipped with a volt-free contact for **alarm forwarding** to an external, central alarm system.

The hot-gas defrost system with demand and time controls creates short defrost cycles, resulting in the absence of temperature spikes during defrost, ensuring **temperature stability in variable conditions.**

**Maximum temperature stability** is ensured by a dynamic cooling system with double ventilation, along with optimal routing of air flow.

The appliance door stays open at a 90° angle, and **self-closes** at an angle of less than 60° for convenient **hands-free** use.



LRT21G1HC

# Quality down to the smallest detail

The MedLine range of appliances with electronic controls are equipped with various features that guarantee the safety of stored products and advanced temperature stability. High-quality materials and precise workmanship, extremely

efficient refrigeration components, and temperature logging functions ensure the optimal storage of sensitive samples, chemicals and research materials.



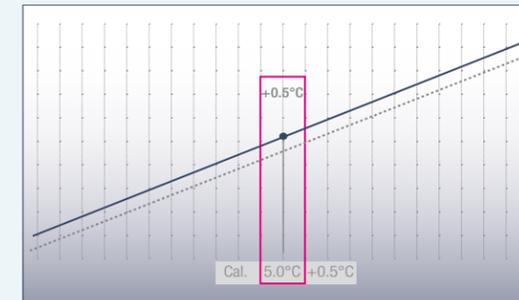
### Alarm logs

An integrated data-memory logs the last three temperature alarms and power failures, recording time, date and duration of the alarm.



### Integrated alarm systems

A visual and audible alarm alerts the user of temperature deviations. An alarm also alerts if the door is open for longer than one minute or in the event of power failure. The alarm-limits can be adjusted by customers to fit their needs.



### Accurate 1-point calibration

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



### Backup power supply to the electronic control

In case of power failure, the electronic control becomes powered by an independent battery. As a result, the memory continues to log the internal min/max-temperatures without interruption for up to 72 hours.

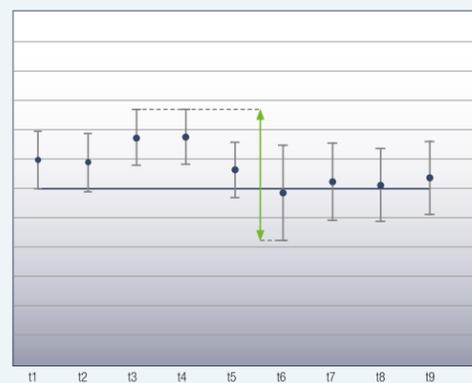
### External temperature sensor

Laboratory appliances with electronic controls and top mounted cooling systems are equipped with an access port (7 mm / 9/32" in diameter) in the top compartment for connecting independent temperature sensors.



### Alarm forwarding

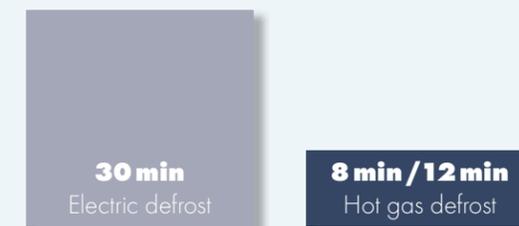
Laboratory appliances with electronic controls are equipped with a volt-free contact for alarm forwarding to an external remote warning system.



### Maximum temperature consistency

Maximum temperature stability in the interior is ensured by the dynamic cooling system with double ventilation. Very short defrost cycles allow the internal temperature to be kept almost constant during the cycle. All laboratory appliances are designed according to the ISO 60068-3 standard with regard to maximum temperature stability and consistency.

## Advantages of hot gas defrosting for minimal temperature changes during defrost cycle



### Energy efficient hot gas defrost system

Defrost faster and less often. The appliance defrosts only when required as the electronic control calculates defrost cycles based on compressor run-times. Energy efficient hot gas reduces the defrost time to 8 minutes in refrigerators, and 12 minutes in freezers.



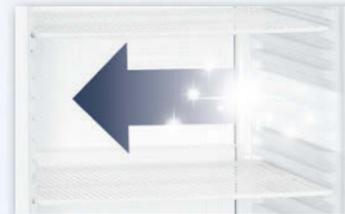
### Versatile interior

Sturdy and versatile, the shelves are easily height-adjustable so that refrigerated or frozen products can be stored optimally on the plastic-coated grid shelves. The interior is made of high-quality stainless steel, which is easy to clean thanks to the large corner radii, for additional hygienic requirements.

# The Liebherr Advantage



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



The **commercial-grade, molded polystyrol inner liner** is exceptionally **easy to clean** for **optimal hygiene.**



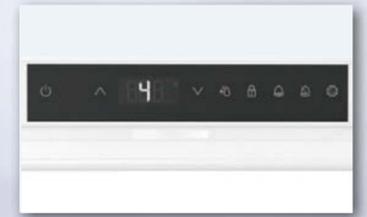
The sturdy, plastic-coated grid shelves have a **loading capacity of up to 60 kg / 132 lbs** (LRB23W1HC and LFB19W1HC) and **45 kg / 99 lbs** (LRB06W1HC and LRB06G1HC), are **easily adjustable** in height, and can be removed at a door opening angle of 90°.

Laboratory appliances with electronic controls are equipped with an access port for **connecting independent temperature sensors.**



LRB23W1HC

An **integrated data memory** logs the last three temperature alarms and power failures, together with the time, date, and duration of the alarm. The respective **data can be recalled** using the AlarmLog function and read on the display panel.



Laboratory refrigerators feature an **efficient LED interior light** for **optimal illumination of the interior.**



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

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



The dynamic cooling system in conjunction with the precision electronic control **ensures maximum temperature stability and high temperature consistency** throughout the interior.



# Quality down to the smallest detail

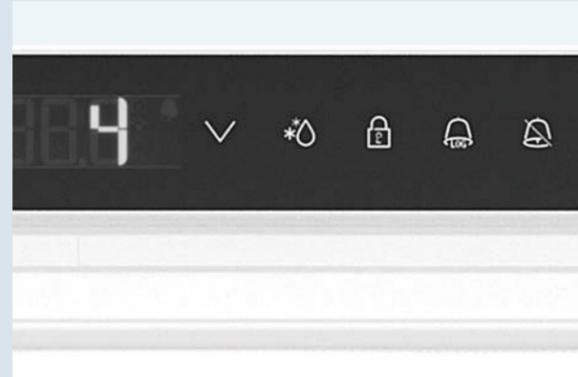
The Mediline range of appliances with electronic controls are equipped with various features that guarantee the safety of stored products and advanced temperature stability. High-quality materials and precise workmanship, extremely

efficient refrigeration components, and temperature logging functions ensure the optimal storage of sensitive samples, chemicals and research materials.



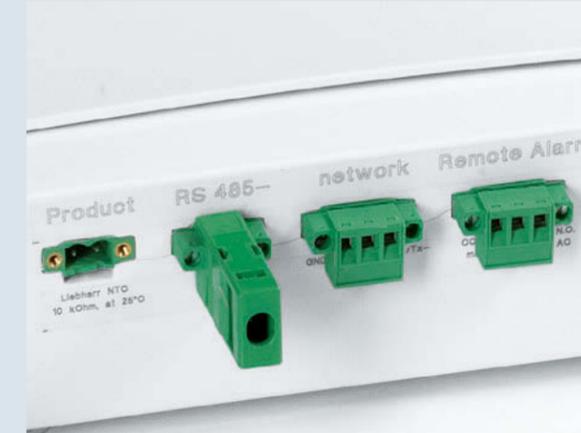
### Electronic controls

The precision electronic control with digital temperature display enables temperatures to be set accurately. The electronic control is flush-mounted and equipped with a membrane keyboard for optimal hygiene.



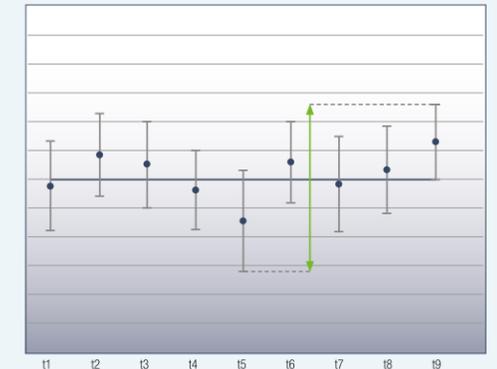
### Integrated alarm systems

Visual and audible alarm systems alert the user to undesired temperature deviations or when the door is open. All alarm parameters can be individually set. For example, the door-open alarm delay can be adjusted between 1 and 5 minutes. Additional safety is provided by a sensor defect alarm.



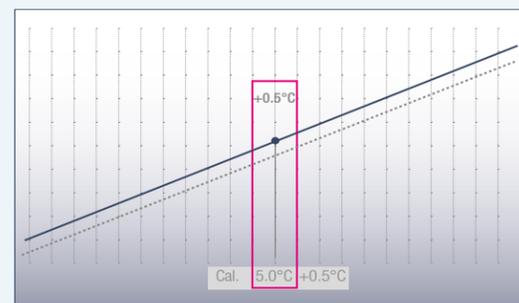
### External temperature and alarm logs

Laboratory appliances are equipped with a volt-free contact for alarm forwarding to an external remote warning system, as well as with a RS 485 serial interface which enables central documentation of temperature profiles and alarm events. LTM documentation software is optionally available.



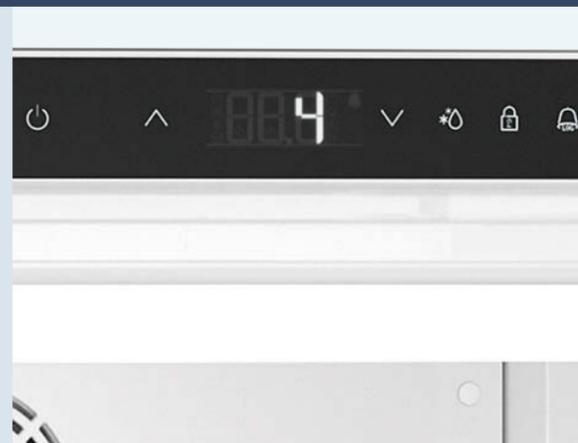
### Maximum temperature consistency

Maximum temperature stability is ensured by the cooling systems of the laboratory refrigerators and freezers, in conjunction with precision electronic controls. All laboratory appliances with electronic controls are designed according to the ISO 60068-3 standard with regard to maximum temperature stability and consistency.



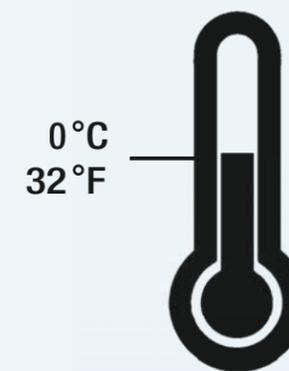
### Accurate 1-point calibration

Laboratory appliances with electronic controls come equipped with 1-point calibration for accurate temperature control. This allows for compensation between the set temperature and the actual internal temperature. Positive or negative changes to the correction value can be made in steps of 0.1 K.



### Integrated data memory

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



### Freeze protection guard

Liebherr appliances are equipped with an additional freeze protection guard to prevent temperatures from dropping below 0°C/32°F, and to protect sensitive products in the event of a failure.



### External temperature sensor

Laboratory appliances with electronic controls are equipped with an access port (10 mm / 13/32" in diameter) in the rear, allowing for the temperature sensor to be positioned in the interior.

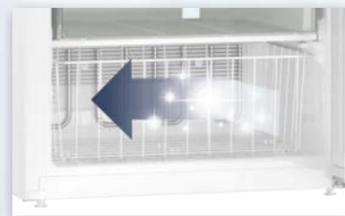
# The Liebherr Advantage



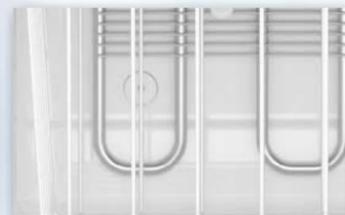
Laboratory appliances with electronic controls are equipped with a volt-free contact for **alarm forwarding to an external remote warning system.**



The **drawers** in the LFBFS05W1HC freezer can be easily removed by the handles recessed on the sides of the appliance. The drawers have a transparent front providing a **clear view of the products stored inside.**



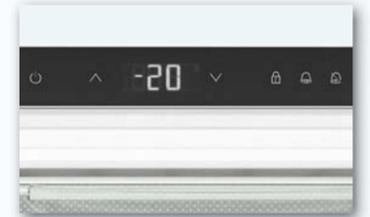
The commercial-grade, molded polystyrol inner liner is exceptionally **easy to clean, allowing for optimal hygiene.**



Laboratory appliances with electronic controls are equipped with an access port for **connecting independent temperature sensors**, such as optionally available NTC temperature sensors or similar instruments.



The precision electronic control with digital temperature display allows for **accurate temperature settings** from -9°C to -26°C (16°F to -15°F).



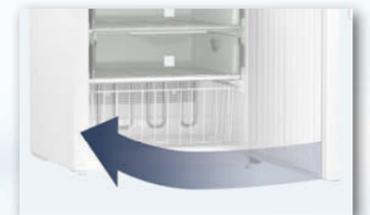
All laboratory refrigerators and freezers with **spark-free interiors** are tested according to **UL standards**, meaning they can be used for storing flammable substances in sealed containers meeting requirements for **Class I, Division 2 storage of flammable substances.**



The precision electronic control includes an **integrated data memory** which logs the maximum and minimum internal temperatures for up to 41 days.



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



Door seals are replaceable for **easy and fast maintenance.**

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

LFBFS05W1HC\*

\* Interior is free from sources of ignition and meets the requirements for Class I, Division 2 for storage of flammable substances in sealed containers. Product complies with applicable NFPA 45 and NFPA 99 requirements.

# Quality down to the smallest detail

The LFBFS05W1HC with electronic controls is suitable for storing potentially explosive and highly flammable materials. The spark-free interior meets the applicable UL and NFPA safety requirements. This undercounter unit is suitable for

storing Class 1, Division I, and Group C and D combustible materials within sealed containers.



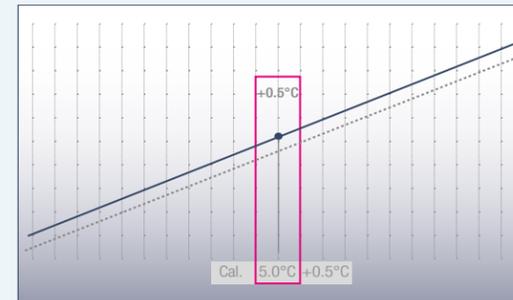
### Storage of flammable materials

All appliances with spark-free interiors are tested according applicable UL-standards and NFPA-guidelines. Rated with Class I, Division I, Group C and D interiors, these appliances are suitable for storing potentially explosive and highly flammable substances in sealed containers.



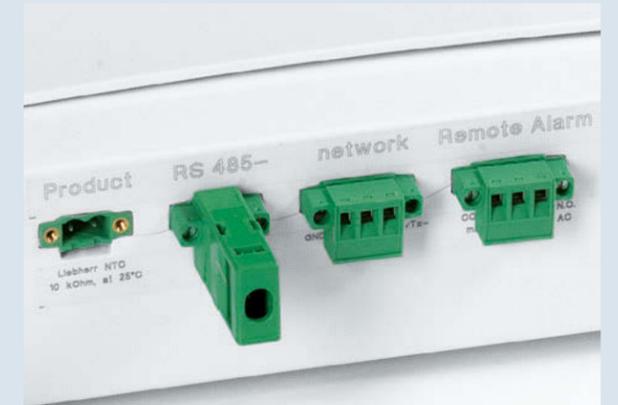
### Electronic controls

The precision electronic control with digital temperature display enables temperatures to be set accurately between -9°C to -26°C (16°F to -15°F). The electronic control is flush-mounted and equipped with a membrane keyboard for optimal hygiene.



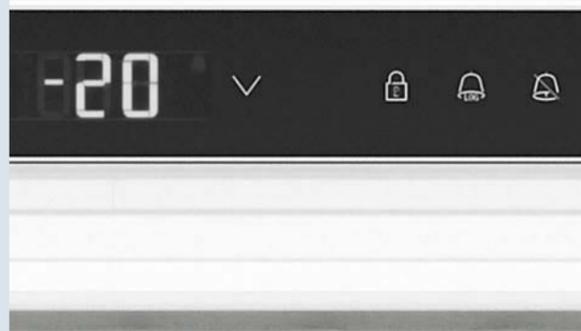
### Accurate 1-point calibration

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



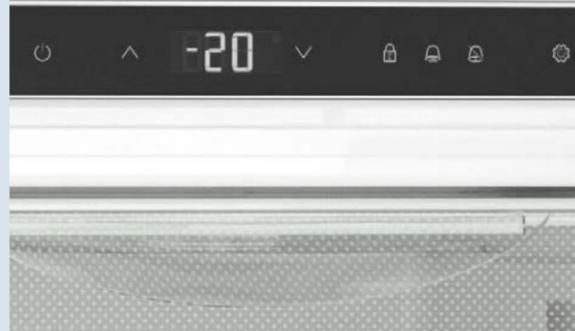
### External temperature and alarm logs

Laboratory appliances with electronic controls are equipped with a volt-free contact for alarm forwarding to an external remote warning system, as well as with a RS 485 serial interface which enables central documentation of temperature profiles and alarm events.



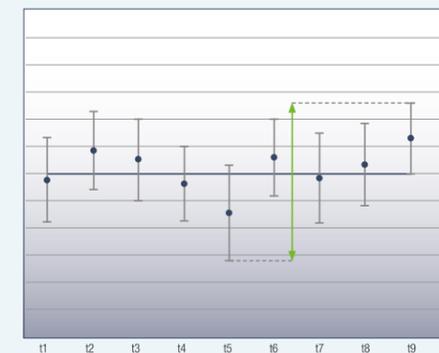
### Integrated alarm systems

Visual and audible alarm systems alert the user to undesired temperature deviations or if the door is open. All alarm parameters can be individually set. For example, the door-open alarm delay can be adjusted between 1 and 5 minutes. Furthermore, laboratory appliances with electronic controls have a visual power failure alarm and a sensor defect alarm.



### Integrated data memory

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



### Maximum temperature consistency

Maximum temperature stability is ensured by the cooling systems of the laboratory refrigerators and freezers, in conjunction with precision electronic controls. All laboratory appliances with electronic controls are designed according to the ISO 60068-3 standard with regard to maximum temperature stability and consistency.



### External temperature sensor

Laboratory appliances with electronic controls are equipped with an access port (10 mm / 13/32" in diameter) in the rear, allowing for the temperature sensor to be positioned in the interior.

# The Liebherr Advantage



LRBFS models are labelled clearly on the outer housing for **easy identification as a flammable material storage refrigerator.**



The molded polystyrol inner liner with large corner radii is exceptionally **easy to clean for optimal hygiene.**



The sturdy glass shelves are easily adjustable in height and can be conveniently removed at a door opening angle of 90°. They ensure **secure storage and have a loading capacity of up to 40 kg / 88 lbs.**



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



**Door hinges can be easily reversed on-site** to accommodate space and design requirements. Door seals can also be **easily replaced as required.**



LRBFS20W1HC\*

# Quality down to the smallest detail



### Storage of flammable material

All appliances with spark-free interiors are tested according applicable UL standards and NFPA guidelines. Rated with Class I, Division I, Group C and D interiors, these appliances are suitable for storing potentially explosive and highly flammable substances in sealed containers.



### Hygienic interior for versatile use

The commercial-grade, molded polystyrol inner liner is exceptionally **easy to clean for optimal hygiene.** Molded trays prevent the glass shelves from tipping over, allowing for adjustable heights of the shelves.



### Glass shelves

The glass shelves ensure secure storage even for small items and have a loading capacity of up to 40 kg / 88 lbs.



### Water tray

The defrost water drain is sealed for compliance with UL standards for flammable material storage refrigerators. The defrost water obtained during the automatic defrost cycle is collected in a tray which has to be emptied manually at regular intervals.

\* Interior is free from sources of ignition and meets the requirements for Class I, Division 2 for storage of flammable substances in sealed containers. Product complies with applicable NFPA 45 and NFPA 99 requirements.

## Laboratory Refrigerators with Top Mount Compressor and Electronic Controls



### Laboratory refrigerators with electronic controls

### LRT50W2HC Mediline

LED

### LRT50G2HC Mediline

LED

|  |  |  |
|--|--|--|
| <b>Total gross/net capacity</b> l (cu.ft.) | 1365/1325 (47.8/46.4)                                | 1398/1357 (49.0/47.5)                                |
| <b>Exterior dimensions</b> in mm (w/d/h)   | 1430/830/2160  | 1430/830/2160  |
| in inches (w/d/h)                          | 56 5/16"/32 11/16"/85 1/16"                          | 56 5/16"/32 11/16"/85 1/16"                          |
| <b>Interior dimensions</b> in mm (w/d/h)   | 1236/650/1500  | 1236/650/1500  |
| in inches (w/d/h)                          | 48 11/16"/25 5/8"/59 1/16"                           | 48 11/16"/25 5/8"/59 1/16"                           |
| Energy consumption in 365 days *           | 803 kWh  | 1314 kWh   |
| Ambient temperature in °C (°F)             | 10°C to 40°C (50°F to 104°F)                         | 16°C to 43°C (61°F to 109°F)                         |
| Refrigerant                                | R290   | R290   |
| Sound rating **                            | 62 dB(A)   | 62 dB(A)   |
| Connection rating                          | 5.0 A  | 5.0 A  |
| Frequency/voltage                          | 60 Hz/115V~  | 60 Hz/115V~  |
| Cooling system                             | forced-air   | forced-air   |
| Defrost                                    | automatic  | automatic  |
| Temperature range in °C (°F)               | -2°C to 16°C (28°F to 61°F)                          | -2°C to 16°C (28°F to 61°F)                          |
| External cabinet finish                    | steel/white  | steel/white  |
| Door/lid material                          | steel  | glass door   |
| Internal liner material                    | stainless steel                                      | stainless steel                                      |
| Type of control                            | electronic control                                   | electronic control                                   |
| Temperature display                        | external digital                                     | external digital                                     |
| Alarm                                      | visual and audible                                   | visual and audible                                   |
| Alarm forwarding                           | yes  | yes  |
| Interior light                             | LED ceiling light                                    | LED ceiling light                                    |
| Adjustable shelves                         | 8  | 8  |
| Shelf material                             | clear-coated wire shelves                            | clear-coated wire shelves                            |
| Shelf load weight in kg (lbs)              | 60 (132.3)   | 60 (132.3)   |
| Usable shelf area in mm (inches)           | 1236/640 (48 11/16"/25 1/4")                         | 1236/640 (48 11/16"/25 1/4")                         |
| Casters                                    | casters with brake at the front, casters at the rear | casters with brake at the front, casters at the rear |
| Handle                                     | full-length integrated handle                        | full-length integrated handle                        |
| Lock                                       | recessed   | recessed   |
| Self-closing door                          | yes  | yes  |
| Door hinges                                | left/right hand hinged, not reversible               | left/right hand hinged, not reversible               |
| Insulation in mm (inches)                  | 83-60 (3 5/16" - 2 3/8")                             | 83-60 (3 5/16" - 2 3/8")                             |
| Gross/net weight in kg (lbs)               | 259/212 (571/467.4)                                  | 270/226 (595.2/498.2)                                |
| <b>Accessories</b>                         |  |  |
| Shelf, plastic-coated                      | 7113327  | 7113327  |
| U-shaped tray slide, right                 | 9001761  | 9001761  |
| U-shaped tray slide, left                  | 9001757  | 9001757  |
| Foot pedal opener                          | 9590639  | 9590639  |

\* Measured unloaded at 26.6°C (80°F) ambient temperature with set point of 3.3°C (38°F).

### Laboratory refrigerators with electronic controls

### LRT30W1HC Mediline

LED

### LRT21G1HC Mediline

LED

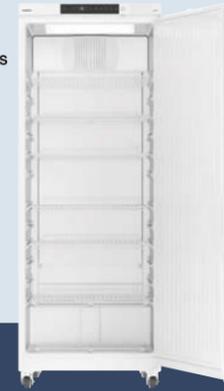
|  |  |  |
|--|--|--|
| <b>Total gross/net capacity</b> l (cu.ft.) | 856/831 (30.0/29.1)  | 622/604 (21.8/21.2)  |
| <b>Exterior dimensions</b> in mm (w/d/h)   | 790/980/2160   | 700/830/2160   |
| in inches (w/d/h)                          | 31 1/8"/38 5/8"/85 1/16"                                   | 27 9/16"/32 11/16"/85 1/16"                                |
| <b>Interior dimensions</b> in mm (w/d/h)   | 623/805/1500   | 532/650/1500   |
| in inches (w/d/h)                          | 24 9/16"/31 3/4"/59 1/16"                                  | 21"/25 5/8"/59 1/16"                                       |
| Energy consumption in 365 days *           | 548 kWh  | 767 kWh  |
| Ambient temperature in °C (°F)             | 10°C to 40°C (50°F to 104°F)                               | 10°C to 40°C (50°F to 104°F)                               |
| Refrigerant                                | R290   | R290   |
| Sound rating **                            | 62 dB(A)   | 62 dB(A)   |
| Connection rating                          | 5.0 A  | 4.0 A  |
| Frequency/voltage                          | 60 Hz/115V~  | 60 Hz/115V~  |
| Cooling system                             | forced-air   | forced-air   |
| Defrost                                    | automatic  | automatic  |
| Temperature range in °C (°F)               | -2°C to 16°C (28°F to 61°F)                                | -2°C to 16°C (28°F to 61°F)                                |
| External cabinet finish                    | steel/white  | steel/white  |
| Door/lid material                          | steel  | glass door   |
| Internal liner material                    | stainless steel  | stainless steel  |
| Type of control                            | electronic control   | electronic control   |
| Temperature display                        | external digital   | external digital   |
| Alarm                                      | visual and audible   | visual and audible   |
| Alarm forwarding                           | yes  | yes  |
| Interior light                             | LED ceiling light  | LED ceiling light  |
| Adjustable shelves                         | 4  | 4  |
| Shelf material                             | clear-coated wire shelves                                  | clear-coated wire shelves                                  |
| Shelf load weight in kg (lbs)              | 60 (132.3)   | 60 (132.3)   |
| Usable shelf area in mm (inches)           | 623/789 (24 9/16"/31 1/8")                                 | 532/640 (21"/25 1/4")                                      |
| Casters                                    | casters with brake at the front, fixed casters at the rear | casters with brake at the front, fixed casters at the rear |
| Handle                                     | full-length integrated handle                              | full-length integrated handle                              |
| Lock                                       | recessed   | recessed   |
| Self-closing door                          | yes  | yes  |
| Door hinges                                | right, reversible on site                                  | right, reversible on site                                  |
| Insulation in mm (inches)                  | 83-60 (3 5/16" - 2 3/8")                                   | 83-60 (3 5/16" - 2 3/8")                                   |
| Gross/net weight in kg (lbs)               | 183/159 (403.4/350.5)                                      | 165/140 (363.8/308.6)                                      |
| <b>Accessories</b>                         |  |  |
| Shelf, plastic-coated                      | 7113325  | 7113327  |
| U-shaped tray slide, right                 | 9005089  | 9001761  |
| U-shaped tray slide, left                  | 9005077  | 9001757  |
| Foot pedal opener                          | 9590659  | 9590659  |

\*\* Noise level – sound power re 1pW – according to IEC 60704-2-14.

**Laboratory Freezers with Top Mount Compressor and Electronic Controls**



**Laboratory Refrigerators and Freezers with Bottom Mount Compressor and Electronic Controls**



**Laboratory freezers**  
with electronic controls

|  | <b>LFT50W2HC</b><br>MediLine                         | <b>LFT30W1HC</b><br>MediLine                               |
|--|--|--|
| <b>Total gross/net capacity</b> l (cu.ft.) | 1365/1325 (47.8/46.4)                                | 856/831 (30.0/29.1)  |
| <b>Exterior dimensions</b> in mm (w/d/h)   | 1430/830/2160  | 790/980/2160   |
| in inches (w/d/h)                          | 56 5/16"/32 11/16"/85 1/16"                          | 31 1/8"/38 5/8"/85 1/16"                                   |
| <b>Interior dimensions</b> in mm (w/d/h)   | 1236/650/1500  | 623/805/1500   |
| in inches (w/d/h)                          | 48 11/16"/25 5/8"/59 1/16"                           | 24 9/16"/31 3/4"/59 1/16"                                  |
| Energy consumption in 365 days *           | 2519 kWh   | 1606 kWh   |
| Ambient temperature in °C (°F)             | 16°C to 43°C (61°F to 109°F)                         | 16°C to 43°C (61°F to 109°F)                               |
| Refrigerant                                | R290   | R290   |
| Sound rating **                            | 65 dB(A)   | 65 dB(A)   |
| Connection rating                          | 10.0 A   | 10.0 A   |
| Frequency/voltage                          | 60 Hz/115V~  | 60 Hz/115V~  |
| Cooling system                             | forced-air   | forced-air   |
| Defrost                                    | automatic  | automatic  |
| Temperature range in °C (°F)               | -10°C to -26°C (14°F to -15°F)                       | -10°C to -35°C (14°F to -31°F)                             |
| External cabinet finish                    | steel/white  | steel/white  |
| Door/lid material                          | steel  | steel  |
| Internal liner material                    | stainless steel                                      | stainless steel  |
| Type of control                            | electronic control                                   | electronic control   |
| Temperature display                        | external digital                                     | external digital   |
| Alarm                                      | visual and audible                                   | visual and audible   |
| Alarm forwarding                           | yes  | yes  |
| Interior light                             | LED ceiling light                                    | LED ceiling light  |
| Adjustable shelves                         | 8  | 4  |
| Shelf material                             | clear-coated wire shelves                            | clear-coated wire shelves                                  |
| Shelf load weight in kg (lbs)              | 60 (132.3)   | 60 (132.3)   |
| Usable shelf area in mm (inches)           | 1236/640 (48 11/16"/25 1/4")                         | 623/789 (24 9/16"/31 1/8")                                 |
| Casters                                    | casters with brake at the front, casters at the rear | casters with brake at the front, fixed casters at the rear |
| Handle                                     | full-length integrated handle                        | full-length integrated handle                              |
| Lock                                       | recessed   | recessed   |
| Self-closing door                          | yes  | yes  |
| Door hinges                                | left/right hand hinged, not reversible               | right, reversible on site                                  |
| Insulation in mm (inches)                  | 83-60 (3 5/16" - 2 3/8")                             | 83-60 (3 5/16" - 2 3/8")                                   |
| Gross/net weight in kg (lbs)               | 264/217 (582/478.4)                                  | 190/159 (418.9/350.5)                                      |
| <b>Accessories</b>                         |  |  |
| Shelf, plastic-coated                      | 7113327  | 7113325  |
| U-shaped tray slide, right                 | 9001761  | 9005089  |
| U-shaped tray slide, left                  | 9001757  | 9005077  |
| Foot pedal opener                          | 9590639  | 9590659  |

\* Refrigerators measured unloaded at 26.6°C (80°F) ambient temperature with set point of 3.3°C (38°F). Freezers measured unloaded at 26.6°C (80°F) ambient temperature with set point of -17.7°C (0°F).

**Laboratory refrigerators and freezers**  
with electronic controls

|  | <b>LRB23W1HC</b><br>MediLine                               | <b>LFB19W1HC</b><br>MediLine                               |
|--|--|--|
| <b>Total gross/net capacity</b> l (cu.ft.) | 664/627 (23.3/22.0)  | 556/475 (19.5/16.7)  |
| <b>Exterior dimensions</b> in mm (w/d/h)   | 747/750/2044   | 747/751/2044   |
| in inches (w/d/h)                          | 29 7/16"/29 9/16"/80 1/2"                                  | 29 7/16"/29 5/8"/80 1/2"                                   |
| <b>Interior dimensions</b> in mm (w/d/h)   | 650/581/1710   | 610/500/1395   |
| in inches (w/d/h)                          | 25 5/8"/22 7/8"/67 3/8"                                    | 24 1/16"/19 11/16"/54 15/16"                               |
| Energy consumption in 365 days *           | 344 kWh  | 1171 kWh   |
| Ambient temperature in °C (°F)             | 10°C to 35°C (50°F to 95°F)                                | 16°C to 35°C (61°F to 95°F)                                |
| Refrigerant                                | R290   | R290   |
| Sound rating **                            | 55 dB(A)   | 62 dB(A)   |
| Connection rating                          | 3.0 A  | 5.0 A  |
| Frequency/voltage                          | 60 Hz/115V~  | 60 Hz/115V~  |
| Cooling system                             | forced-air   | forced-air   |
| Defrost                                    | automatic  | automatic  |
| Temperature range in °C (°F)               | 3°C to 16°C (37°F to 61°F)                                 | -10°C to -32°C (14°F to -26°F)                             |
| External cabinet finish                    | steel/white  | steel/white  |
| Door/lid material                          | steel  | steel  |
| Internal liner material                    | commercial grade molded polystyrol                         | commercial grade molded polystyrol                         |
| Type of control                            | electronic control   | electronic control   |
| Temperature display                        | external digital   | external digital   |
| Alarm                                      | visual and audible   | visual and audible   |
| Alarm forwarding                           | yes  | yes  |
| Interior light                             | LED light  | n/a  |
| Adjustable shelves                         | 6  | 5  |
| Shelf material                             | wire shelves plastic-coated                                | wire shelves plastic-coated                                |
| Shelf load weight in kg (lbs)              | 60 (132.3)   | 60 (132.3)   |
| Usable shelf area in mm (inches)           | 650/530 (25 5/8"/20 7/8")                                  | 610/500 (24 1/16"/19 11/16")                               |
| Casters                                    | casters with brake at the front, fixed casters at the rear | casters with brake at the front, fixed casters at the rear |
| Handle                                     | ergonomic slimline handle                                  | ergonomic slimline handle                                  |
| Lock                                       | recessed   | recessed   |
| Self-closing door                          | yes  | yes  |
| Door hinges                                | right, reversible on site                                  | right, reversible on site                                  |
| Insulation in mm (inches)                  | 50 (2")  | 70 (2 13/16")  |
| Gross/net weight in kg (lbs)               | 113/103 (249.1/227.1)                                      | 126/117 (277.8/257.9)                                      |
| <b>Accessories</b>                         |  |  |
| Shelf, plastic-coated                      | 7113485  | 7113475  |
| NTC product temperature sensor             |  | 9591493  |

\*\* Noise level – sound power re 1pW – according to IEC 60704-2-14.



**Undercounter Laboratory refrigerators**

|  | <b>LRB05W1HC</b><br>MediLine       | <b>LRB05G1HC</b><br>MediLine       |
|--|------------------------------------|------------------------------------|
| <b>Total gross/net capacity</b> l (cu.ft.) | 142/133 (5.0/4.7)                  | 152/143 (5.4/5.1)                  |
| <b>Exterior dimensions</b> in mm (w/d/h)   | 597/614/825                        | 597/614/825                        |
| in inches (w/d/h)                          | 23 9/16"/24 3/16"/32 1/2"          | 23 9/16"/24 3/16"/32 1/2"          |
| <b>Interior dimensions</b> in mm (w/d/h)   | 440/435/670                        | 440/435/670                        |
| in inches (w/d/h)                          | 17 3/8"/17 3/16"/26 7/16"          | 17 3/8"/17 3/16"/26 7/16"          |
| Energy consumption in 365 days *           | 261 kWh                            | 328 kWh                            |
| Ambient temperature in °C (°F)             | 10°C to 35°C (50°F to 95°F)        | 10°C to 35°C (50°F to 95°F)        |
| Refrigerant                                | R600a                              | R600a                              |
| Sound rating **                            | 52 dB(A)                           | 52 dB(A)                           |
| Connection rating                          | 1.5 A                              | 1.5 A                              |
| Frequency/voltage                          | 60 Hz/115V~                        | 60 Hz/115V~                        |
| Cooling system                             | forced-air                         | forced-air                         |
| Defrost                                    | automatic                          | automatic                          |
| Temperature range in °C (°F)               | 3°C to 16°C (37°F to 61°F)         | 3°C to 16°C (37°F to 61°F)         |
| External cabinet finish                    | steel/white                        | steel/white                        |
| Door/lid material                          | steel                              | glass door                         |
| Internal liner material                    | commercial grade molded polystyrol | commercial grade molded polystyrol |
| Type of control                            | electronic control                 | electronic control                 |
| Temperature display                        | external digital                   | external digital                   |
| Alarm                                      | visual and audible                 | visual and audible                 |
| Alarm forwarding                           | yes                                | yes                                |
| Interior light                             | LED ceiling light                  | LED ceiling light                  |
| Adjustable shelves                         | 3                                  | 3                                  |
| Shelf material                             | wire shelves plastic-coated        | wire shelves plastic-coated        |
| Shelf load weight in kg (lbs)              | 45 (99.2)                          | 45 (99.2)                          |
| Usable shelf area in mm (inches)           | 440/420 (17 3/8"/16 9/16")         | 440/420 (17 3/8"/16 9/16")         |
| Handle                                     | ergonomic slimline handle          | ergonomic slimline handle          |
| Lock                                       | recessed                           | recessed                           |
| Self-closing door                          | yes                                | yes                                |
| Door hinges                                | right, reversible on site          | right, reversible on site          |
| Insulation in mm (inches)                  | 40 (1 5/8")                        | 40 (1 5/8")                        |
| Gross/net weight in kg (lbs)               | 38/35 (83.8/77.2)                  | 44/41 (97/90.4)                    |
| <b>Accessories</b>                         |                                    |                                    |
| Shelf, plastic-coated                      | 7112313                            | 7112313                            |
| Additional lock barrels (up to 10)         | on request                         | on request                         |

**Undercounter Laboratory freezer, suitable for flammable material storage**

|  | <b>LFBFS05W1HC ***</b><br>MediLine |
|--|------------------------------------|
| <b>Total gross/net capacity</b> l (cu.ft.) | 140/123 (4.9/4.4)                  |
| <b>Exterior dimensions</b> in mm (w/d/h)   | 597/614/821                        |
| in inches (w/d/h)                          | 23 9/16"/24 3/16"/32 3/8"          |
| <b>Interior dimensions</b> in mm (w/d/h)   | 454/450/663                        |
| in inches (w/d/h)                          | 17 7/8"/17 3/4"/26 1/8"            |
| Energy consumption in 365 days *           | 332 kWh                            |
| Ambient temperature in °C (°F)             | 10°C to 35°C (50°F to 95°F)        |
| Refrigerant                                | R600a                              |
| Sound rating **                            | 45 dB(A)                           |
| Connection rating                          | 2.5 A                              |
| Frequency/voltage                          | 60 Hz/115V~                        |
| Cooling system                             | static                             |
| Defrost                                    | manual                             |
| Temperature range in °C (°F)               | -9°C to -26°C (16°F to -15°F)      |
| External cabinet finish                    | steel/white                        |
| Door/lid material                          | steel                              |
| Internal liner material                    | commercial grade molded polystyrol |
| Type of control                            | electronic control                 |
| Temperature display                        | external digital                   |
| Alarm                                      | visual and audible                 |
| Alarm forwarding                           | yes                                |
| Interior light                             | n/a                                |
| Drawers/Number of baskets                  | 3/1                                |
| Shelf material                             | evaporator plates                  |
| Shelf load weight in kg (lbs)              | 24 (53)                            |
| Usable shelf area in mm (inches)           | 454/450 (17 7/8"/17 3/4")          |
| Handle                                     | ergonomic slimline handle          |
| Lock                                       | recessed                           |
| Self-closing door                          | yes                                |
| Door hinges                                | right, reversible on site          |
| Insulation in mm (inches)                  | 55 (2 3/16")                       |
| Gross/net weight in kg (lbs)               | 45/43 (99.2/94.8)                  |
| <b>Accessories</b>                         |                                    |
| NTC product temperature sensor             | 9590145                            |
| Additional lock barrels (up to 10)         | on request                         |

\* Refrigerators measured unloaded at 26.6°C (80°F) ambient temperature with set point of 3.3°C (38°F). Freezers measured unloaded at 26.6°C (80°F) ambient temperature with set point of -17.7°C (0°F).  
 \*\* Noise level – sound power re 1pW – according to IEC 60704-2-14.

\*\*\* Interior is free from sources of ignition and meets the requirements for Class I, Division 2 for storage of flammable substances in sealed containers. Product complies with applicable NFPA 45 and NFPA 99 requirements.

## Laboratory Refrigerators with Analog Controls Suitable for Flammable Material Storage



| Laboratory refrigerators with analog controls and spark-free interiors | <b>LRBFS20W1HC ***</b><br>Mediline | <b>LRBFS12W1HC ***</b><br>Mediline | Laboratory refrigerators with analog controls and spark-free interiors | <b>LRBFS09W1HC ***</b><br>Mediline | <b>LRBFS06W1HC ***</b><br>Mediline |
|--|------------------------------------|------------------------------------|--|------------------------------------|------------------------------------|
| <b>Total gross/net capacity</b> l (cu.ft.)                             | 567/533 (19.9/18.7)                | 343/318 (12.1/11.2)                | <b>Total gross/net capacity</b> l (cu.ft.)                             | 247/229 (8.7/8.1)                  | 180/165 (6.4/5.8)                  |
| <b>Exterior dimensions</b> in mm (w/d/h)                               | 747/743/1641                       | 597/616/1641                       | <b>Exterior dimensions</b> in mm (w/d/h)                               | 597/616/1250                       | 597/611/859                        |
| in inches (w/d/h)  | 29 7/16"/29 5/16"/64 5/8"          | 23 9/16"/24 5/16"/64 5/8"          | in inches (w/d/h)  | 23 9/16"/24 5/16"/49 1/4"          | 23 9/16"/24 1/16"/33 7/8"          |
| <b>Interior dimensions</b> in mm (w/d/h)                               | 600/560/1452                       | 470/440/1452                       | <b>Interior dimensions</b> in mm (w/d/h)                               | 470/440/1062                       | 513/441/702                        |
| in inches (w/d/h)  | 23 5/8"/22 1/16"/57 3/16"          | 18 9/16"/17 3/8"/57 3/16"          | in inches (w/d/h)  | 18 9/16"/17 3/8"/41 13/16"         | 20 1/4"/17 3/8"/27 11/16"          |
| Energy consumption in 365 days *                                       | 380 kWh                            | 477 kWh                            | Energy consumption in 365 days *                                       | 305 kWh                            | 372 kWh                            |
| Ambient temperature in °C (°F)   | 10°C to 35°C (50°F to 95°F)        | 10°C to 35°C (50°F to 95°F)        | Ambient temperature in °C (°F)   | 10°C to 27°C (50°F to 81°F)        | 10°C to 27°C (50°F to 81°F)        |
| Refrigerant  | R290                               | R290                               | Refrigerant  | R600a                              | R600a                              |
| Sound rating **  | 50 dB(A)                           | 50 dB(A)                           | Sound rating **  | 50 dB(A)                           | 50 dB(A)                           |
| Connection rating  | 3.0 A                              | 3.0 A                              | Connection rating  | 2.5 A                              | 1.5 A                              |
| Frequency/voltage  | 60 Hz/115V~                        | 60 Hz/115V~                        | Frequency/voltage  | 60 Hz/115V~                        | 60 Hz/115V~                        |
| Cooling system   | forced-air                         | forced-air                         | Cooling system   | forced-air                         | forced-air                         |
| Defrost  | automatic                          | automatic                          | Defrost  | automatic                          | automatic                          |
| Temperature range in °C (°F)   | 1°C to 15°C (34°F to 59°F)         | 1°C to 15°C (34°F to 59°F)         | Temperature range in °C (°F)   | 1°C to 15°C (34°F to 59°F)         | 1°C to 15°C (34°F to 59°F)         |
| External cabinet finish  | steel/white                        | steel/white                        | External cabinet finish  | steel/white                        | steel/white                        |
| Door/lid material  | steel                              | steel                              | Door/lid material  | steel                              | steel                              |
| Internal liner material  | commercial grade molded polystyrol | commercial grade molded polystyrol | Internal liner material  | commercial grade molded polystyrol | commercial grade molded polystyrol |
| Type of control  | analog control                     | analog control                     | Type of control  | analog control                     | analog control                     |
| Temperature display  | external digital                   | external digital                   | Temperature display  | external digital                   | external digital                   |
| Interior light   | n/a                                | n/a                                | Interior light   | n/a                                | n/a                                |
| Adjustable shelves   | 5                                  | 5                                  | Adjustable shelves   | 4                                  | 3                                  |
| Shelf material   | glass                              | glass                              | Shelf material   | glass                              | glass                              |
| Shelf load weight in kg (lbs)  | 40 (88.2)                          | 40 (88.2)                          | Shelf load weight in kg (lbs)  | 40 (88.2)                          | 40 (88.2)                          |
| Usable shelf area in mm (inches)                                       | 600/550 (23 5/8"/21 11/16")        | 470/425 (18 9/16"/16 3/4")         | Usable shelf area in mm (inches)                                       | 470/425 (18 9/16"/16 3/4")         | 513/412 (20 1/4"/16 1/4")          |
| Handle   | ergonomic slimline handle          | ergonomic slimline handle          | Handle   | ergonomic slimline handle          | ergonomic slimline handle          |
| Lock   | recessed                           | recessed                           | Lock   | recessed                           | recessed                           |
| Door hinges  | right, reversible on site          | right, reversible on site          | Door hinges  | right, reversible on site          | right, reversible on site          |
| Insulation in mm (inches)  | 32–52 (1 5/16"–2 1/16")            | 32–52 (1 5/16"–2 1/16")            | Insulation in mm (inches)  | 32–52 (1 5/16"–2 1/16")            | 16–55 (11/16"–2 3/16")             |
| Gross/net weight in kg (lbs)   | 88/82 (194/180.8)                  | 68/62 (149.9/136.7)                | Gross/net weight in kg (lbs)   | 52/47 (114.6/103.6)                | 42/39 (92.6/86)                    |
| <b>Accessories</b>   |                                    |                                    | <b>Accessories</b>   |                                    |                                    |
| Glass shelf  | 9293595                            | 9293597                            | Glass shelf  | 9293597                            | 9293599                            |
| Additional lock barrels (up to 10)                                     | upon request                       | upon request                       | Additional lock barrels (up to 10)                                     | upon request                       |                                    |

\* Measured unloaded at 26.6°C (80°F) ambient temperature with set point of 3.3°C (38°F).  
\*\* Noise level – sound power re 1pW – according to IEC 60704-2-14.

\*\*\* Interior is free from sources of ignition and meets the requirements for Class I, Division 2 for storage of flammable substances in sealed containers. Product complies with applicable NFPA 45 and NFPA 99 requirements.

## Accessories

### U-shaped tray slides and plastic-coated shelves

Additional U-shaped tray slides and plastic-coated grid shelves can be retrofitted as required to provide extra storage options. The sturdy grid shelves have an extremely high loading capacity of up to 60 kg/132 lbs. Available for models: LRT50W2HC, LRT50G2HC, LRT30W1HC, LRT21G1HC, LFT50W2HC and LFT30W1HC.



### NTC product temperature sensor

An NTC product temperature sensor for logging product temperatures is available as a retrofit kit for Laboratory appliances with electronic controls. The logged product temperatures can either be read by the electronic control panel or transferred to an external documentation system via the existing RS 485 interface. Available for LFB19W1HC and LFBFS05W1HC models.



### Additional lock barrels

Up to 10 additional lock barrels to protect stored products against unauthorized access are available as accessories for Laboratory appliances with electronic controls. In case of multiple appliances, different locks can be installed to ensure that the respective appliance can only be accessed by the staff members responsible for it. Available for models: LRB05W1HC, LRB05G1HC, LFBFS05W1HC, LRBFS20W1HC, LRBFS12W1HC, LRBFS09W1HC and LRBFS06W1HC.



### Glass shelves

Additional glass shelves can be retrofitted to the LRBFS models as required to provide extra storage options. The glass shelves made of toughened safety glass meet the standards for spark-free refrigerators in accordance with ATEX 95 and have a loading capacity of up to 40 kg/80 lbs. Available for models: LRBFS20W1HC, LRBFS12W1HC, LRBFS09W1HC and LRBFS06W1HC.



### Plastic coated shelves

Additional plastic-coated grid shelves can be retrofitted as required to provide extra storage options. The sturdy grid shelves have an extremely high loading capacity of up to 45 kg/99 lbs. Available for models: LRT50W2HC, LRT50G2HC, LRT30W1HC, LRT21G1HC, LFT50W2HC, LFT30W1HC, LFB19W1HC, LRB23W1HC, LRB05W1HC and LRB05G1HC.



Liebherr USA, Co.  
Refrigerators & Freezers Division

Subject to modification. For up-to-date information, visit [home.liebherr.com](http://home.liebherr.com). Printed in Canada 2017.

[home.liebherr.com](http://home.liebherr.com)