

# Pharmaceutical refrigerators



MediLine



Perfection series

	MediLine	Perfection series
	Pharmaceutical storage MKUv	Pharmaceutical storage HMFvh
Temperature stability	Refrigerators +/-3 K deviation from setpoint	Refrigerators +/-2 K deviation from setpoint (model version H63 +/-3 K)
	Calibration option	Calibration option
Storage safety	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
		Integrated data logger
	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
Interfaces	RS485 interface	Integrated LAN/WiFi
	Modbus RTU communication protocol	Local API
		USB interface for reading the data logger
SmartMonitoring	SmartCoolingHub can be retrofitted	SmartModule integrated
Features	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
Energy consumption		Ultra-efficient
Compliance	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

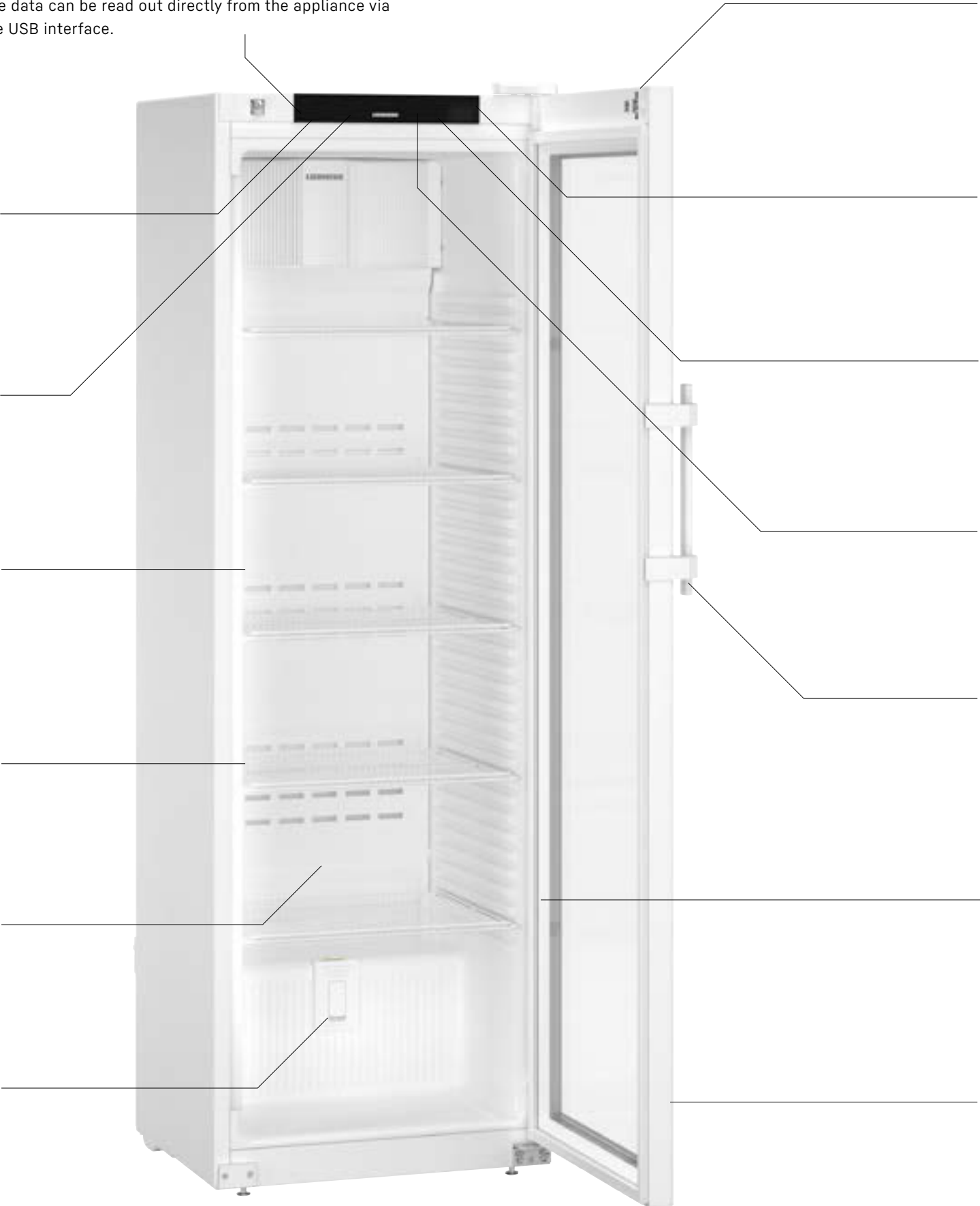
The inner liner made of fully recyclable, robust and odourless polystyrene is manufactured in one piece without joints. This makes it quick and easy to clean the large, rounded corners.

### 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

The smooth-turning handle contains special antimicrobial substances that make it particularly hygienic. Regular and time-consuming disinfection is not necessary.



### 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



### 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

### Ultra-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 cost of ownership.



### ±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 standard

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.

### 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.



HM Fv h 5511	
Perfection	
	Smart Monitoring
Gross / net capacity	588 / 435 litre
Exterior dimensions in mm (w / d / h)	747 / 769 / 1793
Interior dimensions in mm (w / d / h)	600 / 536 / 1460
Energy consumption in 365 days <sup>1</sup>	360 kWh
Ambient temperature range	+10 °C to +35 °C
Heat output	475 kJ/h
Refrigerant	R 600a
Sound power level	49 dB(A)
Voltage / Connection rating	220 – 240V~ / 2.0 A
Cooling system / Defrost	forced-air / automatic
Temperature range	+5 °C
Gradient <sup>2</sup> / max. fluctuation <sup>3</sup>	3.3 °C / 2.0 °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	visual and audible
Volt-free alarm contact	yes
Connectivity type / Connectivity solution	SmartModule / Integrated, removable
Interface	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)	600 / 536
Shelf loading / device	60 kg / 300 kg
Castors	castors with brake at the front, fixed castors at the rear
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	111 / 102 kg
Accessories	
Shelf, plastic-coated	7113310
Base grid / Glass shelf	7113314 / 9291929
Scanner rail	7435210
Castors Ø 80 mm	9086926
Adjustable feet, 90 – 120 mm / 150 – 180 mm	9080022 / 9086924
Side-by-Side set	on request
Additional remote controls	6123395
Digital input for electronic lock	9086958

HM Fv h 5501	
Perfection	
	Smart Monitoring
Gross / net capacity	558 / 436 litre
Exterior dimensions in mm (w / d / h)	747 / 769 / 1793
Interior dimensions in mm (w / d / h)	600 / 536 / 1460
Energy consumption in 365 days <sup>1</sup>	171 kWh
Ambient temperature range	+10 °C to +35 °C
Heat output	246 kJ/h
Refrigerant	R 600a
Sound power level	49 dB(A)
Voltage / Connection rating	220 – 240V~ / 2.0 A
Cooling system / Defrost	forced-air / automatic
Temperature range	+5 °C
Gradient <sup>2</sup> / max. fluctuation <sup>3</sup>	2.2 °C / 1.7 °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
Connectivity type / Connectivity solution	SmartModule / Integrated, removable
Interface	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)	600 / 536
Shelf loading / device	60 kg / 300 kg
Castors	castors with brake at the front, fixed castors at the rear
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	91 / 82 kg
Accessories	
Shelf, plastic-coated	7113310
Base grid / Glass shelf	7113314 / 9291929
Perforated metal shelf	7435210
Scanner rail	9086926
Castors Ø 80 mm / Ø 100 mm	9080022 / 9086924
Adjustable feet, 90 – 120 mm / 150 – 180 mm	on request
Side-by-Side set	on request
Additional remote controls	6123395
Digital input for electronic lock	9086958



HM Fv h 4011	
Perfection	
	Smart Monitoring
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 / Connection rating	220 – 240V~ / 2.0 A
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	visual and audible
Volt-free alarm contact	yes
Connectivity type / Connectivity solution	SmartModule / Integrated, removable
Interface	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 / device	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	89 / 83 kg
Accessories	
Shelf, plastic-coated	7113308
Base grid / Glass shelf	7113312 / 9293493
Perforated metal shelf	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	on request
Additional remote controls	6123395
Digital input for electronic lock	9086958

HM Fv h 4001	
Perfection	
	Smart Monitoring
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 / Connection rating	220 – 240V~ / 2.0 A
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	visual and audible
Volt-free alarm contact	yes
Connectivity type / Connectivity solution	SmartModule / Integrated, removable
Interface	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 / device	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	
Shelf, plastic-coated	7113308
Base grid / Glass shelf	7113312 / 9293493
Perforated metal shelf	9029022
Scanner rail	7435208
Castors Ø 80 mm / Ø 100 mm	9086926 / 9080023
Adjustable feet, 90 – 120 mm / 150 – 180 mm	9080022 / 9086924
Side-by-Side set	on request
Additional remote controls	6123395
Digital input for electronic lock	9086958

<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.





### 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.



### 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.

<b>Gross / net capacity</b>
<b>Exterior dimensions in mm (w / d / h)</b>
<b>Interior dimensions in mm (w / d / h)</b>
<b>Energy consumption in 365 days <sup>1</sup></b>
<b>Ambient temperature range</b>
<b>Refrigerant</b>
<b>Sound power level</b>
<b>Voltage / Connection rating</b>
<b>Cooling system / Defrost</b>
<b>Temperature range</b>
<b>Gradient <sup>2</sup> / max. fluctuation <sup>3</sup></b>
<b>External cabinet finish</b>
<b>Door material</b>
<b>Internal liner material</b>
<b>Type of control</b>
<b>Power failure alarm</b>
<b>Fault: warning signal</b>
<b>Volt-free alarm contact</b>
<b>Connectivity type / Connectivity solution</b>
<b>Interface / Data logger</b>
<b>Interior light</b>
<b>Number of shelves / Adjustable shelves</b>
<b>Number of drawers</b>
<b>Shelf material</b>
<b>Usable shelf area in mm (w / d)</b>
<b>Shelf loading / device</b>
<b>Castors</b>
<b>Handle</b>
<b>Type of lock</b>
<b>Door hinges</b>
<b>Gross / net weight</b>
<b>Accessories</b>
<b>Shelf, plastic-coated</b>
<b>Base grid / Glass shelf</b>
<b>Perforated metal shelf / Scanner rail</b>
<b>Castors Ø 80 mm / Ø 100 mm</b>
<b>Adjustable feet, 90 – 120 mm / 150 – 180 mm</b>
<b>Side-by-Side set</b>
<b>Additional remote controls</b>
<b>Digital input for electronic lock</b>

## Pharmaceutical refrigerators compliant with DIN 13277 with organisational system



**HMFvh 5511**  
ver. H63 Perfection



588 / 355 litre
747 / 769 / 1793
556 / 460 / 1460
400 kWh
+10 °C to +35 °C
R 600a
49 dB(A)
220 – 240V~ / 2.0 A
forced-air / automatic
+5 °C
3.1 °C / 2.6 °C
steel / white
glass
commercial grade moulded polystyrol
2.4" touch & swipe colour display
immediately upon power failure for at least 12 hrs
visual and audible
yes
SmartModule / Integrated, removable
WiFi/LAN / integrated, USB interface
Vertical LED light strip recessed in left wall with separate switch
1 / 1
7
wire shelves plastic-coated
556 / 460
50 kg / 300 kg
castors with brake at the front, fixed castors at the rear
Antimicrobial handle with opening mechanism electronic, with remote control
right, reversible on site
101 / 97 kg

7113310
7113314 / 9291929
- / 7435210
9086926 / -
9080022 / 9086924
on request
6123395
9086958



**HMFvh 5501**  
ver. H63 Perfection



558 / 355 litre
747 / 769 / 1793
556 / 460 / 1460
171 kWh
+10 °C to +35 °C
R 600a
49 dB(A)
220 – 240V~ / 2.0 A
forced-air / automatic
+5 °C
2.8 °C / 2.3 °C
steel / white
steel
commercial grade moulded polystyrol
2.4" touch & swipe colour display
immediately upon power failure for at least 12 hrs
visual and audible
yes
SmartModule / Integrated, removable
WiFi/LAN / integrated, USB interface
LED lighting column, left
1 / 1
7
wire shelves plastic-coated
556 / 460
50 kg / 300 kg
castors with brake at the front, fixed castors at the rear
Antimicrobial handle with opening mechanism electronic, with remote control
right, reversible on site
106 / 100 kg

7113310
7113314 / 9291929
- / 7435210
9086926 / -
9080022 / 9086924
on request
6123395
9086958



**HMFvh 4011**  
ver. H63 Perfection



420 / 235 litre
597 / 654 / 1884
406 / 370 / 1660
409 kWh
+10 °C to +35 °C
R 600a
49 dB(A)
220 – 240V~ / 2.0 A
forced-air / automatic
+5 °C
4.1 °C / 2.2 °C
steel / white
glass
commercial grade moulded polystyrol
2.4" touch & swipe colour display
immediately upon power failure for at least 12 hrs
visual and audible
yes
SmartModule / Integrated, removable
WiFi/LAN / integrated, USB interface
Vertical LED light strip recessed in left wall with separate switch
1 / 1
8
wire shelves plastic-coated
406 / 370
50 kg / 225 kg
Antimicrobial handle with opening mechanism electronic, with remote control
right, reversible on site
82 / 69 kg

7113308
7113312 / 9293493
9029022 / 7435208
9086926 / 9080023
9080022 / 9086924
on request
6123395
9086958



**HMFvh 4001**  
ver. H63 Perfection



394 / 235 litre
597 / 654 / 1884
406 / 370 / 1660
172 kWh
+10 °C to +35 °C
R 600a
49 dB(A)
220 – 240V~ / 2.0 A
forced-air / automatic
+5 °C
4.9 °C / 2.6 °C
steel / white
steel
commercial grade moulded polystyrol
2.4" touch & swipe colour display
immediately upon power failure for at least 12 hrs
visual and audible
yes
SmartModule / Integrated, removable
WiFi/LAN / integrated, USB interface
LED lighting column, left
1 / 1
8
wire shelves plastic-coated
406 / 370
50 kg / 225 kg
Antimicrobial handle with opening mechanism electronic, with remote control
right, reversible on site
69 / 64.5 kg

7113308
7113312 / 9293493
9029022 / 7435208
9086926 / 9080023
9080022 / 9086924
on request
6123395
9086958

**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.



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
Refrigerant	R 600a
Sound power level	47 dB(A)
Voltage / Connection rating	220 - 240V~ / 1.0 A
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
Connectivity type	SmartCoolingHub
Connectivity solution	Retrofittable
Interface	RS485
Interior light	LED ceiling light strip with separate switch
Number of shelves	4
Adjustable shelves	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
Type of lock	mechanical
Door hinges	right, reversible on site
Gross / net weight	48 / 45 kg

Accessories	
Shelf, plastic-coated	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
Refrigerant	R 600a
Sound power level	47 dB(A)
Voltage / Connection rating	220 - 240V~ / 1.0 A
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
Connectivity type	SmartCoolingHub
Connectivity solution	Retrofittable
Interface	RS485
Interior light	
Number of shelves	4
Adjustable shelves	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
Type of lock	mechanical
Door hinges	right, reversible on site
Gross / net weight	42 / 39 kg

Accessories	
Shelf, plastic-coated	7113333
Stacking kit, white	9592697
Roller bars	9590521
SmartCoolingHub	6125784
Additional lock barrels (up to 10)	on request



MKUv 1613 ver. H63  
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>	369 kWh
Ambient temperature range	+10 °C to +35 °C
Refrigerant	R 600a
Sound power level	47 dB(A)
Voltage / Connection rating	220 - 240V~ / 1.0 A
Cooling system	forced-air
Defrost	automatic
Temperature range	+5 °C
Gradient <sup>2</sup> / max. fluctuation <sup>3</sup>	4.1 °C / 1.5 °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
Connectivity type	SmartCoolingHub
Connectivity solution	Retrofittable
Interface	RS485
Interior light	LED ceiling light strip with separate switch
Number of shelves	1
Number of drawers	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
Type of lock	mechanical
Door hinges	right, reversible on site
Gross / net weight	51 / 48 kg

Accessories	
Stacking kit, white	9592697
Roller bars	9590521
SmartCoolingHub	6125784
Additional lock barrels (up to 10)	on request



MKUv 1610 ver. H63  
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
Refrigerant	R 600a
Sound power level	47 dB(A)
Voltage / Connection rating	220 - 240V~ / 1.0 A
Cooling system	forced-air
Defrost	automatic
Temperature range	+5 °C
Gradient <sup>2</sup> / max. fluctuation <sup>3</sup>	2.8 °C / 1.3 °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	immediately upon power failure for at least 12 hrs
Fault: warning signal	visual and audible
Volt-free alarm contact	yes
Connectivity type	SmartCoolingHub
Connectivity solution	Retrofittable
Interface	RS485
Interior light	
Number of shelves	1
Adjustable shelves	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
Type of lock	mechanical
Door hinges	right, reversible on site
Gross / net weight	45 / 42 kg

Accessories	
Shelf, plastic-coated	9592697
Stacking kit, white	9590521
Roller bars	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.

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.



**Plastic-coated grid shelf**  
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**  
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.

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**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**  
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**  
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.