30

## The advantages at a glance



# Quality right down to the smallest detail



40 kg

IIB+H2 T6

#### Certified according to ATEX 95.

The LKexv models are labelled clearly and permanently on the outer housing in accordance with the ATEX Directive 94/9 EC, including information for cleaning. Rated as II 3G Ex nA II T6, these appliances are suitable for storing explosive and highly flammable substances in sealed containers.

#### Hygienic interior for versatile use.

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

#### Glass shelves.

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

#### Water tray.

The defrost water drain in the laboratory appliances with spark-free interior is sealed for compliance with the ATEX Directive 94/9 EC. The defrost water obtained during the automatic defrost cycle is collected in a tray which has to be emptied manually at regular intervals.

LKexv 5400



<b>Laboratory refrigerators</b> with mechanical control and spark-free interior	LKexv 5400 MediLine	LKexv 3600 Mediline	LKexv 2600 MediLine	<b>LKexv 1800</b> Mediline
Total gross/net capacity	554/520 litre	333/307 litre	240/221 litre	180/160 litre
Exterior dimensions in mm (w/d/h)	750/730/1640	600/610/1640	600/610/1250	600/600/860
Interior dimensions in mm (w/d/h)	600/560/1452	470/440/1452	470/440/1062	513/441/702
Energy consumption in 24 h *	0.983 kWh	0.947 kWh	0.786 kWh	0.898 kWh
General				
Cooling system	forced-air	forced-air	forced-air	forced-air
Defrost	automatic	automatic	automatic	automatic
Temperature range	+1°C to +15°C	+1°C to +15°C	+1°C to +15°C	+1°C to +15°C
External cabinet finish	steel/white	steel/white	steel/white	steel/white
Door/lid material	steel	steel	steel	steel
Internal liner material	commercial grade moulded polystyrol	commercial grade moulded polystyrol	commercial grade moulded polystyrol	commercial grade moulded polystyrol
Type of control	analogue controls	analogue controls	analogue controls	analogue controls
Temperature display	external digital	external digital	external digital	external digital
Adjustable shelves	5	5	4	3
Usable shelf area in mm (w/d)	600/550	470/425	470/425	513/412
Shelf material	glass	glass	glass	glass
Shelf loading	40 kg	40 kg	40 kg	40 kg
Handle	ergonomic slimline handle	ergonomic slimline handle	ergonomic slimline handle	ergonomic slimline handle
Lock	fitted	fitted	fitted	fitted
Door hinges	right, reversible on site	right, reversible on site	right, reversible on site	right, reversible on site
			50/40/	
Gross/net weight	84/77 kg	64/59 kg	53/49 kg	40/38 kg
Gross/net weight Climate rating	84/77 kg SN-T	64/59 kg SN-T	53/ 49 kg SN-T	40/38 kg SN
-				
Climate rating	SN-T	SN-T	SN-T	SN
Climate rating Sound power level	SN-T 48 dB(A)	SN-T 48 dB(A)	SN-T 48 dB(A)	SN 44 dB(A)
Climate rating Sound power level Refrigerant	SN-T 48 dB(A) R 600a	SN-T 48 dB(A) R 600a	SN-T 48 dB(A) R 600a	SN 44 dB(A) R 600a
Climate rating Sound power level Refrigerant	SN-T 48 dB(A) R 600a	SN-T 48 dB(A) R 600a	SN-T 48 dB(A) R 600a	SN 44 dB(A) R 600a
Climate rating Sound power level Refrigerant Voltage / Connection rating	SN-T 48 dB(A) R 600a	SN-T 48 dB(A) R 600a	SN-T 48 dB(A) R 600a	SN 44 dB(A) R 600a
Climate rating Sound power level Refrigerant Voltage / Connection rating  Accessories	SN-T 48 dB(A) R 600a 220-240V~/1.5 A	SN-T 48 dB(A) R 600a 220-240V~/1.5 A	SN-T 48 dB(A) R 600a 220-240V-/1.0 A	SN 44 dB(A) R 600a 220-240V~/1.0 A
Climate rating Sound power level Refrigerant Voltage / Connection rating  Accessories Glass shelf	SN-T 48 dB(A) R 600a 220-240V~/1.5 A	SN-T 48 dB(A) R 600a 220-240V~/1.5 A	SN-T 48 dB(A) R 600a 220-240V~/1.0 A	SN 44 dB(A) R 600a 220-240V~/1.0 A
Climate rating Sound power level Refrigerant Voltage / Connection rating  Accessories Glass shelf Castor base	SN-T 48 dB(A) R 600a 220-240V~/1.5 A 9293613 9086365	SN-T 48 dB(A) R 600a 220-240V~/1.5 A 9293615 9086323	SN-T 48 dB(A) R 600a 220-240V~/1.0 A 9293615 9086323	SN 44 dB(A) R 600a 220-240V~/1.0 A
Climate rating Sound power level Refrigerant Voltage / Connection rating  Accessories Glass shelf Castor base Adjustable legs	SN-T 48 dB(A) R 600a 220-240V~/1.5 A 9293613 9086365 9590233	SN-T 48 dB(A) R 600a 220-240V~/1.5 A 9293615 9086323 9590233	SN-T 48 dB(A) R 600a 220-240V~/1.0 A  9293615 9086323 9590233	SN 44 dB(A) R 600a 220-240V~/1.0 A
Climate rating Sound power level Refrigerant Voltage / Connection rating  Accessories Glass shelf Castor base Adjustable legs	SN-T 48 dB(A) R 600a 220-240V~/1.5 A 9293613 9086365 9590233	SN-T 48 dB(A) R 600a 220-240V~/1.5 A 9293615 9086323 9590233	SN-T 48 dB(A) R 600a 220-240V~/1.0 A  9293615 9086323 9590233	SN 44 dB(A) R 600a 220-240V~/1.0 A
Climate rating Sound power level Refrigerant Voltage / Connection rating  Accessories Glass shelf Castor base Adjustable legs	SN-T 48 dB(A) R 600a 220-240V~/1.5 A 9293613 9086365 9590233	SN-T 48 dB(A) R 600a 220-240V~/1.5 A 9293615 9086323 9590233	SN-T 48 dB(A) R 600a 220-240V~/1.0 A  9293615 9086323 9590233	SN 44 dB(A) R 600a 220-240V~/1.0 A
Climate rating Sound power level Refrigerant Voltage / Connection rating  Accessories Glass shelf Castor base Adjustable legs	SN-T 48 dB(A) R 600a 220-240V~/1.5 A 9293613 9086365 9590233	SN-T 48 dB(A) R 600a 220-240V~/1.5 A 9293615 9086323 9590233	SN-T 48 dB(A) R 600a 220-240V~/1.0 A  9293615 9086323 9590233	SN 44 dB(A) R 600a 220-240V~/1.0 A
Climate rating Sound power level Refrigerant Voltage / Connection rating  Accessories Glass shelf Castor base Adjustable legs	SN-T 48 dB(A) R 600a 220-240V~/1.5 A 9293613 9086365 9590233	SN-T 48 dB(A) R 600a 220-240V~/1.5 A 9293615 9086323 9590233	SN-T 48 dB(A) R 600a 220-240V~/1.0 A  9293615 9086323 9590233	SN 44 dB(A) R 600a 220-240V~/1.0 A
Climate rating Sound power level Refrigerant Voltage / Connection rating  Accessories Glass shelf Castor base Adjustable legs	SN-T 48 dB(A) R 600a 220-240V~/1.5 A 9293613 9086365 9590233	SN-T 48 dB(A) R 600a 220-240V~/1.5 A 9293615 9086323 9590233	SN-T 48 dB(A) R 600a 220-240V~/1.0 A  9293615 9086323 9590233	SN 44 dB(A) R 600a 220-240V~/1.0 A
Climate rating Sound power level Refrigerant Voltage / Connection rating  Accessories Glass shelf Castor base Adjustable legs	SN-T 48 dB(A) R 600a 220-240V~/1.5 A 9293613 9086365 9590233	SN-T 48 dB(A) R 600a 220-240V~/1.5 A 9293615 9086323 9590233	SN-T 48 dB(A) R 600a 220-240V~/1.0 A  9293615 9086323 9590233	SN 44 dB(A) R 600a 220-240V~/1.0 A

\* measured at +25 °C ambient temperature and +5 °C set temperature

32 33

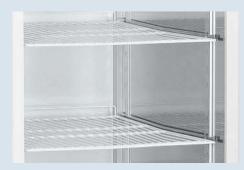


#### Accessories

#### Section: Laboratory refrigerators and freezers with Profi electronic controller

U-shaped trayslides and plastic-coated shelves

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



#### Infrared key with documentation software

The alarm events and temperature profile data can be read out using the infrared key available as an accessory. Corresponding documentation software is included allowing visualisation of the read-out data on a PC.



#### Interface converter with monitoring software

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



#### NTC product temperature sensor

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



## Section: Laboratory refrigerators and freezers with Comfort electronic controller and spark-free interior

NTC spark-free product temperature sensor

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



#### Section: Laboratory refrigerators and freezers with Comfort electronic controller and spark-free interior

#### Interface converter with monitoring software

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



#### Additional lock barrels

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



#### Glass shelves

Additional glass shelves can be retrofitted to the LCexv, LKexv and LKUexv models as required to provide extra storage options. The glass shelves made of toughened safety glass meet the standards for spark-free refrigerators in accordance with ATEX 95 and have a loading capacity of up to 40 kg.



#### Stacking kit

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



#### Roller sets and adjustable-height feet

30 mm high roller sets can be retrofitted to the under-worktop LKUexv 1610 and LGUex 1500 models and adjustable-height feet can be retrofitted to the LKexv 3910 and LGex 3410 models to allow easy cleaning underneath. The feet are adjustable between 115 mm and 170 mm in height.



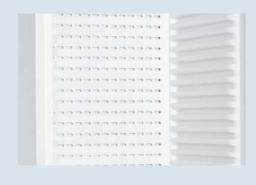
#### Evaporator cover

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



#### NTC product temperature sensor

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





#### Interface converter with monitoring software

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



#### Additional lock barrels

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



#### Stacking kit

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



36 37

#### Section: Laboratory refrigerators and laboratory fridge-freezer with Comfort electronic controller

#### Evaporator cover

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



#### Roller sets and adjustable-height feet

30 mm high roller sets can be retrofitted to the under-worktop LKUv models and adjustable-height feet can be retrofitted to the LKv models to allow easy cleaning underneath. The feet are adjustable between 115 mm and 170 mm in height.



#### Plastic-coated grid 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.



#### Section: Laboratory chest freezers up to -45°C

#### NTC product temperature sensor

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



#### Interface converter with documentation software

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



#### Optional high-quality baskets

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



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

#### Glass shelves

Additional glass shelves can be retrofitted to the LCexv, LKexv and LKUexv models as required to provide extra storage options. The glass shelves made of toughened safety glass meet the standards for spark-free refrigerators in accordance with ATEX 95 and have a loading capacity of up to 40 kg.



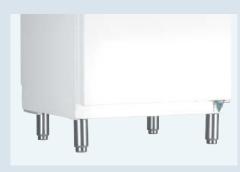
#### Castor base

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



#### Adjustable-height feet

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



#### Additional lock barrels

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



38



Pricing on any accessories shown can be found by keying the part number into the search box on our website.

The specifications listed in this brochure are subject to change by the manufacturer and therefore cannot be guaranteed to be correct. If there are aspects of the specification that must be guaranteed, please provide these to our sales team so that details can be confirmed.

### www.wolflabs.co.uk

Tel: 01759 301142

Fax: 01759 301143

sales@wolflabs.co.uk

Please contact us if this literature doesn't answer all your questions.