Model KB 240 | Cooling incubators with powerful compressor cooling

The powerful virtuoso in cooling incubators for microorganisms: the KB masters temperature ranges from -10 °C to 100 °C. The new KB series consumes up to 30% less energy compared to its predecessor. With its extensive programming options and homogenous incubation conditions even when fully loaded, this cooling incubator covers a wide range of applications.

BENEFITS

- Safe, reproducible incubation, even at high ambient temperatures
- Disinfection routine at +100 °C
- Up to 30% lower energy consumption compared to the previous model



Model 240



Model 240

MAIN FEATURES

- Temperature range: -10 °C to +100 °C
- APT.line™ preheating chamber technology
- Up to 30% lower energy consumption compared to the previous model
- Cooling with compressor cooling unit
- Door heating
- Adjustable fan speed
- Controller with time-segment and real-time programming

- Inner door made of tempered safety glass
- 2 stainless steel racks
- 4 casters, two with locking brakes
- Access port with silicone plug, 30 mm, left
- Class 3.1 independent temperature safety device (DIN 12880) with visual and acoustic alarm
- Computer interface: Ethernet

ORDERING INFORMATION

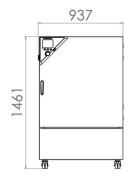
Interior volume [L]	Voltage	Option model	Version	ArtNo.
0.47	200230 V 1~ ph 50/60 Hz	Standard	KB240-230V	9020-0202
247	100120 V 1~ ph 60 Hz	Standard	KB240UL-120V	9020-0304

TECHNICAL DATA

Action Numberpersonance Data TemperatureFerromance Data Temperature10-10010-100Temperature angel PCI10-10010-100Temperature variation at y PCI pKI2010-100Recovery time after a social Segment of the Segment of the Segment of the Segment of the Segment of Se	Description	KB240-230V ¹	KB24oUL-12oV¹
Temperature arriation at 37°C [x [x] 1-0-100	Article Number	9020-0202	9020-0304
Temperature fluctuation at 37°C [kl] 0.2 0.2 Recovery time after 30 seconds door open at 37°C [min) 2.2 0.2 Recovery time after 30 seconds door open at 37°C [min) 20.0-230 0.0-120 Reted Voltage [V] 30.0-230 0.0-120 Power fequency [tz] 6.0 0.0-20 Nominal power [kW] 1.2 1.2 Phase (Wominal voltage) 1.6 0.0 Pilli flus [A] 4.6 0.0 Pilli flus [A] 4.7 4.7 Messures 4.7 4.7 Permitted load [kg] 0.0 0.0 Vet weight of the unit (empty) [kg] 30 0.0 Vet weight of the unit (empty) [kg] 30 0.0 Wall clearance back [km] 100 0.0 Wall clearance sidwise [km] 50 0.0 Wall clearance sidwise [km] 55 5.0 Interior width [km] 56 5.0 Interior width [km] 5.0 5.0 Interior beight [km] 1.0 1.0 United or sept [km] <td>Performance Data Temperature</td> <td></td> <td></td>	Performance Data Temperature		
Remperature fluctuation at 37°C [x [x]] 0.1	Temperature range [°C]	-10100	-10100
Recovery time after 30 seconds door open at 31°C [min] 2 Electrical tate Use 2002 1000 control of 2002 Read Voltage [V] 2002 1000 control of 2002 1000 control of 2002 Rower frequency [kr] 2002 2002 1000 control of 2002 1000 c	Temperature variation at 37 °C [± K]	0.2	0.2
Electrical data Electrical	Temperature fluctuation at 37 °C [± K]	0.1	0.1
Rede Voltage [V] Joo. 200-230 Joo. 200-	Recovery time after 30 seconds door open at 37 °C [min]	2	2
Power frequency [Hz] 56/60 60 Nominal power [KW] 1.2 1.2 Unit fuse [A] 16 16 Phase (Nominal voltage) 1- 1- Measures ************************************	Electrical data		
Nominal power [kW] 1.2 1.2 Unit fuse [A] 1.6 1.6 Phase (Nominal voltage) 1.2 1.2 Measures 1.2 1.2 Net weight of the unit (empty) [kg] 247 2.7 Net weight of the unit (empty) [kg] 1.0 1.0 Permitted load [kg] 1.0 1.0 Uall clearance back [km] 1.0 1.0 Wall clearance back [km] 1.0 0.0 Wall clearance sidewise [mm] 6.0 1.0 Wall clearance sidewise [mm] 6.5 6.0 Interior width [mm] 6.5 6.0 Interior leight [mm] 7.8 5. Interior dopth [mm] 2.0 4.5 Boots 4.5 5. Interior dopth [mm] 2.0 1.0 Interior width [mm] 2.0 2.0 Interior dopth [mm] 2.0 2.0 Interior dopth [mm] 2.0 2.0 Interior width [mm] 2.0 2.0 Interior dopth [mm]	Rated Voltage [V]	200230	100120
Unit fuse [A] 16 6 Phase (Nominal voltage) 1- 7- Measures 1- 7- Interior volume [L] 247 247 Net weight of the unit (empty) [kg] 200 200 Permitted load [kg] 100 30 Bernitted load [kg] 100 30 Wall clearance back [mm] 100 100 Wall clearance sidewise [mm] 100 100 Wall clearance sidewise [mm] 650 50 Interior width [mm] 650 50 50 Interior width [mm] 85 50 50 Interior height [mm] 85 50 85 Interior height [mm] 10 1 1 Interior height [mm] 10 2 50 50 Brown 10 1 </td <td>Power frequency [Hz]</td> <td>50/60</td> <td>60</td>	Power frequency [Hz]	50/60	60
Phase (Nominal voltage) 1- Measures Interior volume [L] 247 247 Net weight of the unit (empty) [kg] 1-00 1-00 Permitted load [kg] 1-00 1-00 Load per rack [kg] 30 30 Wall clearance back [mm] 1-00 1-00 Wall clearance sidewise [mm] 1-00 1-00 Wall clearance sidewise [mm] 650 650 Interior width [mm] 650 650 Interior beight [mm] 785 785 Interior doth [mm] 485 485 Doors 1 4 Unit doors 1 1 Unit doors 2 2 Width net [mm] 92 5 Width net [mm] 92 5 Height ret [mm] 1-00 1-00 Unit doors 92 5 Width net [mm] 92 5 Petit pet [mm] 92 5 Unit doors 92 6	Nominal power [kW]	1.2	1.2
Measures Interior volume [L] 247 247 Net weight of the unit (empty) [kg] 170 170 Permitted load [kg] 100 100 Load per rack [kg] 30 30 Wall clearance sledwise [mm] 100 100 Wall clearance sidewise [mm] 650 650 Interior width [mm] 650 650 Interior depth [mm] 785 785 Interior depth [mm] 485 485 Unit doors 1 1 Unit doors 2 2 Width net [mm] 92 25 Width net [mm] 1465 92 Width net [mm] 1465 92 Peth net [mm] 1465 92 Enterior ment-specific data 2 2 Environment-specific dat	Unit fuse [A]	16	16
Interior volume [L] 247 247 Net weight of the unit (empty) [kg] 170 170 Permitted load [kg] 100 100 Load per rack [kg] 30 100 Wall clearance back [mm] 100 100 Wall clearance sidewise [mm] 100 100 Interior width [mm] 650 650 Interior width [mm] 785 785 Interior depth [mm] 485 485 Doors 1 1 Unit doors 1 1 Housing dimensions not incl. fittings and connections 2 25 Width net [mm] 925 925 Height net [mm] 465 465 Depth net [mm] 800 800 Environment-specific data 270 270 Environment-specific data 53 3 Fixtures	Phase (Nominal voltage)	1~	1~
Net weight of the unit (empty) [kg] 170 170 Permitted load [kg] 100 100 Load per rack [kg] 30 30 Wall clearance back [mm] 100 100 Wall clearance sidewise [mm] 100 100 Interior width [mm] 650 650 Interior width [mm] 785 785 Interior depth [mm] 483 483 Doors 1 1 Unit doors 1 1 Housing dimensions not incl. fittings and connections 25 25 Width net [mm] 925 925 Height net [mm] 1465 465 Depth net [mm] 800 800 Environment-specific data 270 270 Environment-specific data 53 3 Fixtures 53 3	Measures		
Permitted load [kg] 100 100 Load per rack [kg] 30 30 Wall clearance back [mm] 100 100 Wall clearance sidewise [mm] 100 100 Internal Dimensions ************************************	Interior volume [L]	247	247
Load per rack [kg] 30 30 Wall clearance back [mm] 100 100 Wall clearance sidewise [mm] 100 100 Internal Dimensions ************************************	Net weight of the unit (empty) [kg]	170	170
Wall clearance back [mm] 100 100 Wall clearance sidewise [mm] 100 100 Internal Dimensions Interior width [mm] 650 650 Interior height [mm] 785 785 Interior depth [mm] 485 485 Doors Unit doors 1 1	Permitted load [kg]	100	100
Wall clearance sidewise [mm] 100 100 Internal Dimensions Company of the property	Load per rack [kg]	30	30
Internal Dimensions Interior width [mm] 650 650 Interior height [mm] 785 785 Interior depth [mm] 485 485 Doors ************************************	Wall clearance back [mm]	100	100
Interior width [mm] 650 650 Interior height [mm] 785 785 Interior depth [mm] 485 485 Doors Inner doors 1 1 Unit doors 1 1 Housing dimensions not incl. fittings and connections Vidth net [mm] 925 925 Height net [mm] 1465 1465 1465 Depth net [mm] 800 800 Environment-specific data 270 270 Sound-pressure level [dB(A)] 53 33 Fixtures	Wall clearance sidewise [mm]	100	100
Interior height [mm] 785 785 Interior depth [mm] 485 485 Doors ************************************	Internal Dimensions		
Interior depth [mm] 485 485 Doors Inner doors 1 1 Unit doors 1 1 Housing dimensions not incl. fittings and connections Width net [mm] 925 925 Height net [mm] 465 1465 Depth net [mm] 800 800 Environment-specific data 270 Sound-pressure level [dB(A)] 53 53 Fixtures	Interior width [mm]	650	650
Doors Inner doors 1 1 Unit doors 1 1 Housing dimensions not incl. fittings and connections *** *** Width net [mm] 925 925 Height net [mm] 1465 1465 Depth net [mm] 800 800 Environment-specific data 270 270 Sound-pressure level [dB(A)] 53 53 Fixtures *** ***	Interior height [mm]	785	785
Inner doors 1 1 Unit doors 1 1 Housing dimensions not incl. fittings and connections VIII Amount of the connections VIII Amount of the connections Width net [mm] 925 925 Height net [mm] 1465 1465 Depth net [mm] 800 800 Environment-specific data 270 270 Sound-pressure level [dB(A)] 53 53 Fixtures Fixtures	Interior depth [mm]	485	485
Unit doors 1 1 Housing dimensions not incl. fittings and connections Vidth net [mm] 925 925 Height net [mm] 1465 1465 1465 Depth net [mm] 800 800 800 Environment-specific data 270 270 Sound-pressure level [dB(A)] 53 53 Fixtures	Doors		
Housing dimensions not incl. fittings and connections Width net [mm] 925 925 Height net [mm] 1465 1465 Depth net [mm] 800 800 Environment-specific data 270 270 Sound-pressure level [dB(A)] 53 53 Fixtures Fixtures 1465	Inner doors	1	1
Width net [mm] 925 925 Height net [mm] 1465 1465 Depth net [mm] 800 800 Environment-specific data 270 270 Sound-pressure level [dB(A)] 53 53 Fixtures	Unit doors	1	1
Height net [mm] 1465 1465 Depth net [mm] 800 800 Environment-specific data 270 270 Sound-pressure level [dB(A)] 53 53 Fixtures	Housing dimensions not incl. fittings and connections		
Depth net [mm] 800 800 Environment-specific data	Width net [mm]	925	925
Environment-specific data Energy consumption at 37 °C [Wh/h] 270 270 Sound-pressure level [dB(A)] 53 53 Fixtures	Height net [mm]	1465	1465
Energy consumption at 37 °C [Wh/h] 270 270 Sound-pressure level [dB(A)] 53 53 Fixtures	Depth net [mm]	800	800
Sound-pressure level [dB(A)] 53 53 Fixtures	Environment-specific data		
Fixtures	Energy consumption at 37 °C [Wh/h]	270	270
	Sound-pressure level [dB(A)]	53	53
Number of shelves (std./max.) 2/9 2/9	Fixtures		
	Number of shelves (std./max.)	2/9	2/9

¹ All technical data is specified for unloaded units with standard equipment at an ambient temperature of +22 °C ±3 °C and a power supply voltage fluctuation of ±10 %. The temperature data is determined in accordance to BINDER factory standard following DIN 12880, observing the recommended wall clearances of 10 % of the height, width, and depth of the inner chamber. Technical data refers to 100 % fan speed. All indications are average values, typical for units produced in series. We reserve the right to change technical specifications at any time.

DIMENSIONS incl. fittings and connections [mm]





OPTIONS

Designation	Description	*	ArtNo.
	left		
	30 mm	01	8012-0648
	50 mm	01	8012-0653
	right		
Access port with silicone	30 mm	01	8012-0647
plug	50 mm	01	8012-0652
	top		
	30 mm	01	8012-0649
	50 mm	01	8012-0650
	100 mm	01	8012-0651
Alarm output, zero- voltage	for temperature (±2 °C), accessible via 6-pin DIN socket (max. 24 V - 2.5 A), with audible signal that can be switched off	-	8012-1083
Calibration certificate, expanded	for temperature; for extending the measurement in center of chamber to include another test temperature	-	8012-1120
	for temperature, measurement in center of chamber at specified temperature	-	8012-1139
Calibration certificate,	temperature measurement incl. certificate and 27 measuring points at specified temperature	=	8012-1598
temperature	temperature measurement incl. certificate, 15- 18 measuring points at specified temperature	-	8012-1577
	temperature measurement incl. certificate, 9 measuring points at specified temperature	-	8012-1556
Class 3.3 independent temperature safety device	with visual alarm (DIN 12880)	-	8012-1081
Door lock	lockable door handle	-	8012-1774
Pt 100 temperature sensor	additional flexible Pt 100, interior, for displaying the temperature on the unit display	-	8012-1079
Shelf, reinforced	positioned at bottom level, max. load 45 kg, with additional attachment for operation of shaking device, stirring device or roller bottle system	-	8012-0639

^{*} Notes > See last page

ACCESSORIES

Designation	Description	*	ArtNo.
APT-COM™ 4 BASIC- Edition	for simple logging and documentation requirements with up to 5 networked units.		
	version 4, BASIC edition	-	9053-0039
APT-COM™ 4 GLP- Edition	for working under GLP-compliant conditions. Measured values are documented in a tamper-proof way in line with the requirements of FDA Regulation 21 CFR 11.		
	version 4, GLP edition	-	9053-0042
APT-COM™ 4 PROFESSIONAL-Edition	convenient unit and user management built on the BASIC edition. Suitable for networking up to 100 units.		
	version 4, PROFESSIONAL edition	-	9053-0040

^{*} Notes > See last page

Designation	Description	*	ArtNo.
LED light bars	Basic set consisting of 2 pieces, attachment material, control unit for max. 4 light strips, 100-240 V, 50/60 Hz		
	Basic set 300, length 30 cm	-	8012-1107
	Basic set 500, length 50 cm	-	8012-1108
	Expansion set consisting of 2 pieces, attachment material: clips. For expanding the basic set of light bars		
	Expansion set 300, length 30 cm	-	8012-1716
	Expansion set 500, length 50 cm	-	8012-1717
pH-neutral detergent	concentrated, for gentle remove of residual contaminants; 1 kg	-	8012-225
	IQ/OQ documents – supporting documents for validation performed by customers, consisting of: IQ/OQ checklists incl. calibration guide and comprehensive unit documentation; parameters: temperature, CO ₂ , O ₂ , pressure, depending on unit		
	Digital in PDF format	-	7057-000
o 115	Hard copy inside folder	-	7007-000
Qualification documents	$IQ/OQ/PQ$ documents – supporting documents for validation performed by customers, according to customer requirements, PQ section added to qualification folder IQ/OQ ; parameters: temperature, CO_2 , O_2 – or pressure, depending on unit		
	Digital in PDF format	-	7057-000
	Hard copy inside folder	-	7007-000
Rack	stainless steel	-	8012-205
Rack accessories	fasteners (1 set of 4) for additional security of racks	-	8012-228
Rack, reinforced	stainless steel, with fasteners (1 set of 4)	-	8012-063
Rubber pads	set anti-slip feet	-	8012-203
Shelf, perforated	Stainless steel	-	8012-216
WLAN kit	The kit contains a client bridge that establishes a wireless connection between BINDER units and APT-COM4, LIMS, or customer-specific software via an Ethernet interface. It provides an alternative solution in situations where units need to be positioned in locations without an on-site Ethernet connection. In secured networks, installation and configuration must be performed by the customer's IT service.	-	8012-226

^{*} Notes > See last page

SERVICES

Designation	Description	*	ArtNo.
Maintenance contracts			
Installation services			
Calibration services			
Validation services			
Maintenance services			
Warranty service			
1-year warranty extension	The warranty is extended by 1 year from the delivery date, wear parts are excluded	-	DL50-0010
BRONZE 3-year maintenance contract	Maintenance service as contractually agreed, visual inspection of mechanical and electrical components, check of control response, 20% discount on spare parts	05	DL20-0710
Calibration certificate, temperature	Calibration of one (1) test temperature specified by the user in center of chamber, including certificate	03, 04, 05	DL30-0101
	Extension of calibration of one (1) additional test temperature specified by the user in the center of the usable space, including certificate	03, 04, 05	DL30-0102
Execution of IQ/OQ	Execution of IQ/OQ in accordance with qualification folder	05	DL41-0200
Execution of IQ/OQ/PQ	Execution of IQ/OQ/PQ in accordance with qualification folder	05	DL44-0500
GOLD 3-year maintenance contract	Maintenance service as contractually agreed, visual inspection of mechanical and electrical components, check of control response, 20% discount on spare parts, testing of all key functions, replacement of wear parts, calibration of one test temperature specified by the user in the center of the usable space, including certificate	05	DL20-0910
Maintenance	One-off maintenance service in accordance with maintenance schedule. Visual inspection of mechanical and electrical components, testing of all key functions. Calibration of a test temperature specified by the user in center of usable space without certificate	05	DL20-0200
SILVER 3-year maintenance contract	Maintenance service as contractually agreed, visual inspection of mechanical and electrical components, check of control response, 20% discount on spare parts, testing of all key functions, calibration of one test temperature specified by the user in the center of the usable space, without certificate	05	DL20-0810

^{*} Notes > See last page

Data Sheet Model KB 240

Designation	Description	*	ArtNo.
Temperature measurement, 18 measuring points	Temperature measurement with 18 measuring points with a set value specified by the user, including certificate	03, 04, 05	DL30-0118
Temperature measurement, 27 measuring points	Temperature measurement with 27 measuring points with a set value specified by the user, including certificate	03, 04, 05	DL30-0127
Temperature measurement, 9 measuring points	Temperature measurement with 9 measuring points with a set value specified by the user, including certificate	03, 04, 05	DL30-0109
Connect the unit to the customer-side connections (electricity, water, wastewater, gas), basic functions Unit commissioning check, brief operating instructions. (excl.: unpacking, setup, controller instructions, programming, installation work)		05	DL10-0100
Unit instructions	Instruction regarding operating principle and basic functions of the unit, operation of the control electronics including programming	05	DL10-0500

^{*} Notes > See last page

NOTES

- Condensation may occur in the area around the access port. Access ports may be placed in custom locations for an additional charge. UL mark is not granted when this option is used.
- 02
- Sensor calibration is performed in an accredited calibration laboratory. 03
- Calibration is performed according to the BINDER factory standard.
- Quoted prices do not include travel costs. Please refer to the chapter on BINDER Service for travel costs for your region. Quoted prices for services performed in Switzerland do not include a country-specific added fee (available on request).

BINDER GmbH

Tuttlingen, Germany TEL +49 7462 2005 0 FAX +49 7462 2005 100 info@binder-world.com www.binder-world.com

BINDER Asia Pacific (Hong Kong) Ltd.

Kowloon, Hong Kong, P.R. China TEL +852 39070500 FAX +852 39070507 asia@binder-world.com www.binder-world.com

BINDER Environmental Testing Equipment (Shanghai) Co., Ltd. Shanghai, P.R. China TEL +86 21 685 808 25 FAX +86 21 685 808 29 china@binder-world.com www.binder-world.com

BINDER Inc. Bohemia, NY, USA TEL +1 631 224 4340 FAX +1 631 224 4354 usa@binder-world.com www.binder-world.us