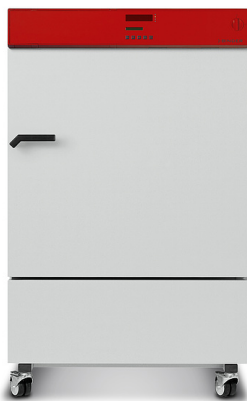


# Model KB 240 | Cooling incubators with compressor technology

## BENEFITS

- Safe and reproducible incubation conditions even at high environmental conditions
- Disinfection routine at 100 °C



Model 240



Model 240

## MAIN FEATURES

- Temperature range: -5 °C to 100 °C
- APT.line™ preheating chamber technology
- Cooling with compressor cooling unit
- Door heating system
- Adjustable fan speed
- Controller with time-segment and real-time programming
- Elapsed time indicator
- Inner door made of tempered safety glass
- 2 stainless steel racks
- 4 castors, two with brakes
- Access port with silicone plug, 30 mm, left
- Class 3.1 independent temperature safety device (DIN 12880) with visual and audible temperature alarm
- Computer interface: RS 422

## ORDERING INFORMATION

Interior volume [L]	Voltage	Option model	Version	Art.-No.
Model KB 240				
247	200...240 V 1~ 50 Hz	Standard	KB240-230V	9020-0241
	100...120 V 1~ 60 Hz	Standard	KB240UL-120V	9020-0254

## TECHNICAL DATA

Description	KB240-230V	KB240UL-120V
<b>Article Number</b>	<b>9020-0241</b>	<b>9020-0254</b>
Performance Data Temperature		
Temperature range [°C]	-5...100	-5...100
Temperature uniformity at 37 °C [± K]	0.2	0.2
Temperature fluctuation [± K]	0.1	0.1
Recovery time after 30 seconds door open 90° aperture angle at 37 °C [min]	1	1
Electrical data		
Rated Voltage [V]	200...240	100...120
Power frequency [Hz]	50	60
Nominal power [kW]	1.2	1.2

## Data Sheet Model KB 240

Description	KB240-230V	KB240UL-120V
<b>Article Number</b>	<b>9020-0241</b>	<b>9020-0254</b>
Unit fuse [A]	16	16
Phase (Nominal voltage)	1~	1~
<b>Measures - Outer dimensions</b>		
Width net [mm]	925	925
Height net [mm]	1465	1465
Depth net [mm]	800	800
Wall clearance back [mm]	100	100
Wall clearance sidewise [mm]	100	100
<b>Measures - Doors</b>		
Inner doors	1	1
Unit doors	1	1
<b>Measures - Internal Dimensions</b>		
Width [mm]	650	650
Height [mm]	785	785
Depth [mm]	485	485
<b>Measures</b>		
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
<b>Environment-specific data</b>		
Energy consumption at 37 °C	260 Wh/h	260 Wh/h
Sound-pressure level [dB(A)]	0	0
<b>Fixtures</b>		
Number of shelves (standard/maximum)	2/9	2/9

## OPTIONS AND ACCESSORIES

Designation	Description	*	Art.-No.
<b>Access port with silicone plug</b>	30 mm, left	01	8012-0648
	30 mm, right	01	8012-0647
	30 mm, top	01	8012-0649
	50 mm, left	01	8012-0653
	50 mm, right	01	8012-0652
	50 mm, top	01	8012-0650
	100 mm, top	01	8012-0651
	<b>Analog output, 4 – 20 mA</b>	for temperature values (output not adjustable)	02
<b>Calibration certificate, expanded</b>	each measurement at additional measuring point or testing temperature	–	8012-0022
<b>Calibration certificate, temperature</b>	for temperature, measurement in center of chamber at specified temperature	–	8012-0030
	temperature measurement incl. certificate and 27 measuring points at specified temperature	–	8012-0921
	temperature measurement incl. certificate, 15- 18 measuring points at specified temperature	–	8012-0918
	temperature measurement incl. certificate, 9 measuring points at specified temperature	–	8012-0915
<b>Class 3.3 independent temperature safety device</b>	with visual alarm (DIN 12880)		
	120 V option model	–	8012-0612
	230 V option model	–	8012-0610
<b>Data Logger Kit</b>	T 220: temperature logging from -90 °C to 220 °C	19	8012-0715

\* Notes › See last page

## Data Sheet Model KB 240

Designation	Description	*	Art.-No.
<b>Data Logger Kit, software</b>	LOG ANALYZE software kit, configuration and evaluation software for all BINDER Data Logger Kits (incl. USB data cable)	19	8012-0821
<b>Door lock</b>	lockable door handle	-	8012-0584
<b>Ethernet interface</b>	in place of RS 422, for communication software	-	8012-0613
<b>Interface converter</b>	RS 422 cable set and RS 232 / RS 422 interface converter for connection to 10-way plug distributor or for connection to a unit		
	120 V, 60 Hz option model	-	8012-0557
	230 V, 50/60 Hz option model	-	8012-0556
<b>Interface converter, USB / RS422</b>	RS 422 cable set and RS 422 / USB interface converter for connection to 10-way plug distributor or for connection to a unit (USB-powered converter)	-	8012-0665
<b>Interior socket</b>	coverable, with associated LEMO connector (nominal voltage, max. 500 W, max. 90 °C, protection class IP67)	07	8012-0640
<b>Magnetic Pouch (A4)</b>	insert pouch with magnetic strip	-	1007-0065
<b>pH-neutral detergent</b>	concentrated, for gentle remove of residual contaminants; 1 kg	-	1002-0016
<b>Pt 100 temperature sensor</b>	additional Pt 100, with flexible cable installed with external connection, incl. 6-pin DIN socket	-	8012-0637
<b>Rack</b>	stainless steel	-	6004-0101
<b>Rack, accessories</b>	set of 4 fasteners for additional security	-	8012-0620
<b>Rack, reinforced</b>	stainless steel, with 1 set of 4 fasteners, max. load 70 kg	-	8012-0638
<b>RS 422 interface</b>	modular plug distributor for 10 RS 422 interfaces	-	8012-0295
<b>RS 422 interface, cable (15 m)</b>	RS 422 connection cable (15 m) between plug distributor and RS 422 interface	-	5023-0036
<b>RS 422 interface, cable (50 m)</b>	RS 422 extension cable (50 m) between interface converter and unit or RS 232 / RS 422 plug distributor	-	5023-0117
<b>Shelf, perforated</b>	stainless steel	-	6004-0040
<b>Shelf, reinforced</b>	positioned at bottom level, max. load 67 kg, with additional attachment for operation of shaking device, stirring device or roller bottle system	-	8012-0639
	APT-COM™ communications software		
<b>Software</b>	version 2 to 3, GLP edition	19	9053-0016
	version 3, BASIC edition	19	9053-0014
	version 3, GLP edition	19	9053-0015
	version 3, STANDARD edition	19	9053-0013
	APT-COM™ communications software, price: for free		
	version 3, GLP DEMO Edition	19	9053-0008
<b>Zero voltage relay contacts</b>	for controlling 3 relay contacts via program regulators, accessible via 6-pin DIN socket (max. 24 V - 2.5 A)		
	120 V, 230 V option model	-	8012-0627

\* Notes › See last page

## SERVICES

Designation	Description	*	Art.-No.
<b>Installation services</b>			
Installation	and set up of unit at operating location, connect to existing connections	13, 18	DL100100
Instruction	unit function instructions for operation and programming of the controller	18	DL100500
<b>Preventive maintenance</b>			
Preventive maintenance	Executive of equipment inspection according to maintenance plan	14, 18	DL200300
<b>Calibration services</b>			
Calibration temperature	including certificate, one measuring point in center of chamber at specified temperature	14, 16, 17, 18	DL300101
Temperature measurement 18 measuring points	including certificate, 18 measuring points at specified temperature	14, 16, 17, 18	DL300118
Temperature measurement 27 measuring points	including certificate, 27 measuring points at specified temperature	14, 16, 17, 18	DL300127

\* Notes › See last page

Designation	Description	*	Art.-No.
Temperature measurement 9 measuring points	including certificate, 9 measuring points at specified temperature	14, 16, 17, 18	DL300109
<b>Validation services</b>			
Execution of IQ/OQ	in accordance with qualification folder	15, 18, 20	DL410200
Execution of IQ/OQ/PQ	in accordance with customer's requirement, price: on request	15, 18	DL440500
Qualification folder IQ/OQ	supporting documents for validation performed by customer, consisting of: IQ/OQ checklists, unit schematics, QM certificate in accordance with ISO 9001	15, 18, 20	8012-0873
Qualification folder IQ/OQ/PQ	supporting documents for validation performed by customer, in accordance with customer's requirement, extension of Qualification folder IQ/OQ by chapter PQ	15, 18	8012-0960
<b>Warranty service</b>			
Extension of the warranty from 2 to 3 years	beginning with the date of delivery, wearing parts are not included	-	DL018041
Extension of the warranty from 2 to 5 years	beginning with the date of delivery, wearing parts are not included	-	DL018042

\* Notes › See last page

## NOTES

- 01 Condensation may occur in the area around the access port. Access ports may be placed in custom locations for an additional charge.  
02 UL mark is not granted when this option is used.  
03 Heat resistant only to max. 200 °C.  
04 Only available on units rated for 230 V.  
05 Attention: The pump is delivered separately. The electric connection for the pump (230 V/1~/50 Hz) must be carried out by an authorized electrician.  
06 Heating-up time may increase as a result of the lower heat conductivity.  
07 The additional heat input may affect the temperature behavior.  
08 The pump (packaged separately) is ready for connection.  
09 Not in conjunction with the optional access port, door with window and interior lighting.  
10 Not available on 23-liter units.  
11 Not available on 23- or 53-liter units.  
12 Only available on units rated for 230 V or 400 V.  
13 Installation and connections take place at unit location; transport within the company only upon consultation.  
14 We recommend a BINDER service contract (see the chapter on BINDER Service) to cover unit inspections, calibrations and validations.  
15 OQ according to Yellow Paper = completed factory validation documentation of all OQ checklists.  
16 Sensor calibration is performed in an accredited calibration laboratory.  
17 Calibration is performed according to the BINDER factory standard.  
18 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).  
19 For additional accessories, refer to the Process documentation chapter.  
20 When ordering IQ/OQ qualification folders and associated IQ/OQ execution on one order, we offer a 15 % discount for both items.  
When ordering IQ/OQ/PQ qualification folders and associated IQ/OQ/PQ execution on one order, we offer a 15 % discount for the item of the IQ/OQ/PQ folder.  
21 ATEX conformity:  
Pumping chamber (pumped gases): II 2G IIC T3 X  
Environment with inert purge gas: II 2G IIB T4 X  
Environment without inert purge gas: II 3G IIB T4 X  
Motor: II 2G Ex d IIB T4 Gb

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