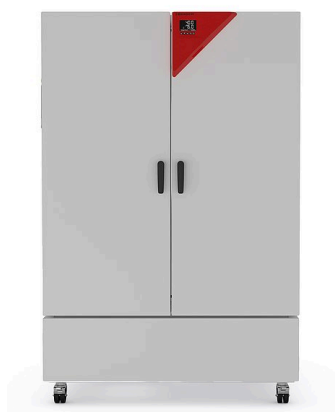


# Model KB ECO 1020 | Refrigerated incubators with environmentally friendly thermoelectric cooling

Thanks to thermoelectric cooling technology with patented heat dissipation, the new KB ECO cooling incubator is one of the most energy-efficient cooling incubator on the market. The thermoelectric cooling technology means the KB ECO series is also very quiet during operation.

## BENEFITS

- Safe: Unique condensate and dry-out protection for all operating conditions
- Reliable: Fail-safe operation due to intelligent thermoelectric tempering
- Smart: Temperatures programmable for intermitted incubation and refrigeration
- Economical: Minimum energy consumption thanks to optimized thermoelectric cooling



Model 1020



Model 1020

## MAIN FEATURES

- Temperature range: 0 °C through +70 °C (max. 26 °C below the ambient temperature)
- APT.line™ preheating chamber technology
- Electric temperature control thanks to thermoelectric cooling module with innovative heat dissipation
- Inner door made of tempered safety glass
- Inner chamber made completely of stainless steel
- 2 stainless steel racks
- Adjustable condensate protection
- Access port with silicone plug Ø 30 mm
- LCD to display temperature along with additional information and alarms
- Internal data logger, measured values can be read out in open format via USB
- Unit self-test for comprehensive status analysis

## ORDERING INFORMATION

Interior volume [cu.ft.]	Voltage	Option model	Version	Art.-No.
36	200...230 V 1~ 50/60 Hz	Standard	KBECO1020-230V	9020-0425
	100...120 V 1~ 50/60 Hz	Standard	KBECO1020UL-120V	9020-0428

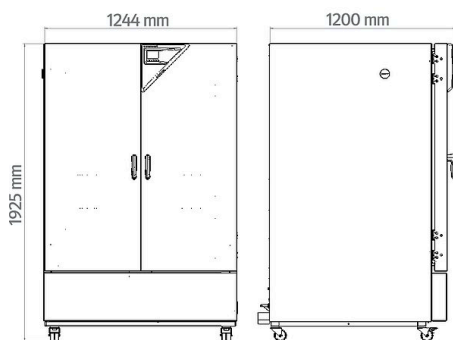
**TECHNICAL DATA**

Description	KBECO1020-230V <sup>1</sup>	KBECO1020UL-120V <sup>1</sup>
Article Number	9020-0425	9020-0428
<b>Performance Data Temperature</b>		
Temperature range (max. 26 °C under ambient temperature) [°C]	0...70	0...70
Temperature variation at 37 °C [± K]	0.1	0.1
Temperature fluctuation at 37 °C [± K]	0.1	0.1
Max. heat compensation at 40 °C [W]	500	500
Recovery time after 30 seconds door open at 37 °C [min]	4	4
<b>Electrical data</b>		
Rated Voltage [V]	200...230	100...120
Power frequency [Hz]	50/60	50/60
Nominal power [kW]	1.3	1.3
Unit fuse [A]	16	16
Phase (Nominal voltage)	1~	1~
<b>Measures</b>		
Interior volume [cu.ft.]	36	36
Net weight of the unit (empty) [lbs]	721	721
Permitted load [lbs]	331	331
Load per rack [lbs]	99	99
Wall clearance back [in]	3.94	3.94
Wall clearance sidewise [in]	3.94	3.94
<b>Internal Dimensions</b>		
Width [in]	38.34	38.34
Height [in]	49.3	49.3
Depth [in]	32.94	32.94
<b>Doors</b>		
Inner doors	2	2
Unit doors	2	2
<b>Housing dimensions not incl. fittings and connections</b>		
Width net [in]	49.3	49.3
Height net [in]	75.8	75.8
Depth net [in]	45.3	45.3
<b>Environment-specific data</b>		
Energy consumption at 37 °C [Wh/h]	105	105
Sound-pressure level [dB(A)]	47	47
<b>Fixtures</b>		
Number of shelves (std./max.)	2/15	2/15

<sup>1</sup> 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 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.

For model KB ECO 240, temperature differences are possible up to 28 °C below ambient temperature; for models KB ECO 720 and KB ECO 1020, temperature differences are possible up to 26 °C below ambient temperature.

The lowest operating temperature for all units is 0 °C irrespective of the ambient temperature.

**DIMENSIONS INCL. FITTINGS AND CONNECTIONS [MM]****OPTIONS**

Designation	Description	*	Art.-No.
	left		
	30 mm	01	8012-2113
	50 mm	01	8012-2120
	100 mm	01	8012-2118
	right		
<b>Access port with silicone plug</b>	30 mm	01	8012-2112
	50 mm	01	8012-2119
	100 mm	01	8012-2117
	top		
	30 mm	01	8012-2114
	50 mm	01	8012-2115
	100 mm	01	8012-2116
<b>Calibration certificate, expanded</b>	for temperature; for extending the measurement in center of chamber to include another test temperature	-	8012-2107
	for temperature, measurement in center of chamber at specified temperature	-	8012-2106
<b>Calibration certificate, temperature</b>	temperature measurement incl. certificate and 27 measuring points at specified temperature	-	8012-2110
	temperature measurement incl. certificate, 15- 18 measuring points at specified temperature	-	8012-2109
	temperature measurement incl. certificate, 9 measuring points at specified temperature	-	8012-2108
<b>Door lock</b>	lockable door handle	-	8012-2122

\* Notes › See last page

**ACCESSORIES**

Designation	Description	*	Art.-No.
	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
	Basic set 900, length 90 cm	-	8012-1109
<b>LED light bars</b>	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
	Expansion set 900, length 90 cm	-	8012-1718
	Multi Management Software APT-COM™		
<b>Multi Management Software</b>	version 4, BASIC edition	-	9053-0039
	version 4, GLP edition	-	9053-0042
	version 4, PROFESSIONAL edition	-	9053-0040
<b>pH-neutral detergent</b>	concentrated, for gentle remove of residual contaminants; 1 kg	-	1002-0016

\* Notes › See last page

Designation	Description	*	Art.-No.
<b>Qualification documents</b>	IQ/OQ documents – supporting documents for validation performed by customers, consisting of: IQ/OQ checklists incl. calibration guide and comprehensive unit documentation; parameters: temperature and humidity values		
	Digital in PDF format	–	7057-0002
	Hard copy inside folder	–	7007-0002
	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 and humidity values		
	Digital in PDF format	–	7057-0006
	Hard copy inside folder	–	7007-0006
<b>Rack</b>	stainless steel	–	8012-2052
<b>Rack, reinforced</b>	stainless steel, with fasteners (1 set of 4)	–	8012-0968
<b>Shelf, perforated</b>	Stainless steel	–	8009-0792

\* Notes › See last page

## SERVICES

Designation	Description	*	Art.-No.
<b>Installation services</b>			
Unit installation	Connect the unit to the customer-side connections (electricity, water, wastewater, gas), basic functions 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
<b>Maintenance services</b>			
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
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
<b>Calibration services</b>			
Temperature calibration	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
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
<b>Validation services</b>			
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

\* 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 Sensor calibration is performed in an accredited calibration laboratory.
- 04 Calibration is performed according to the BINDER factory standard.
- 05 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

**Representative Office for CIS**

Moscow, Russia  
TEL +7 495 988 15 16  
FAX +7 495 988 15 17  
russia@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