Model KB ECO 400 | Cooling 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

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MAIN FEATURES

- Temperature range: 0 °C through +70 °C (max. 28 °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 rack, stainless steel
- 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
- Computer interface: Ethernet

ORDERING INFORMATION

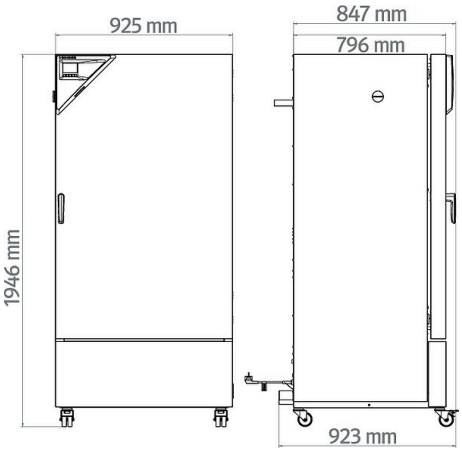
Interior volume [L]	Voltage	Option model	Version	Art.-No.
400	200...230 V 1~ ph 50/60 Hz	Standard	KBECO400-230V	9020-0465
	100...120 V 1~ ph 50/60 Hz	Standard	KBECO400-120V	9020-0466

TECHNICAL DATA

Description	**KBECO400-230V[1]**	**KBECO400-120V[1]**
Article Number	**9020-0465**	**9020-0466**
Performance Data Temperature		
Temperature range (max. 28 °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]	350	350
Recovery time after 30 seconds door open at 37 °C [min]	6	6
Electrical data		
Rated Voltage [V]	200…230	100…120
Power frequency [Hz]	50/60	50/60
Nominal power [kW]	1.2	1.2
Unit fuse [A]	16	16
Phase (Nominal voltage)	1~	1~
Measures		
Interior volume [L]	400	400
Net weight of the unit (empty) [kg]	196	196
Permitted load [kg]	120	120
Load per rack [kg]	30	30
Wall clearance back [mm]	100	100
Wall clearance sidewise [mm]	100	100
Internal Dimensions		
Interior width [mm]	650	650
Interior height [mm]	1268	1268
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]	1946	1946
Depth net [mm]	796	796
Environment-specific data		
Energy consumption at 37 °C [Wh/h]	70	70
Sound-pressure level [dB(A)]	43	43
Fixtures		
Number of shelves (std./max.)	2/15	2/15

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 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 and KB ECO 400 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.
Access port with silicone plug	left		
	30 mm	01	8012-2113
	50 mm	01	8012-2120
	100 mm	01	8012-2118
	right		
	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
Calibration certificate, expanded	for temperature; for extending the measurement in center of chamber to include another test temperature	–	8012-2107
Calibration certificate, temperature	for temperature, measurement in center of chamber at specified temperature	–	8012-2106
	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
Door lock	lockable door handle	–	8012-2121

* Notes › See last page

ACCESSORIES

Designation	Description	*	Art.-No.
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	*	Art.-No.
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	–	8012-2250
Qualification documents	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	–	7057-0001
	Hard copy inside folder	–	7007-0001
	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	–	7057-0005
	Hard copy inside folder	–	7007-0005
Rack	stainless steel	–	8012-2050
Rack, reinforced	stainless steel, with fasteners (1 set of 4)	–	8012-0638
Shelf, perforated	Stainless steel	–	8012-2163

* Notes › See last page

SERVICES

Designation	Description	*	Art.-No.
Maintenance contracts			
Installation services			
Maintenance services			
Calibration services			
Validation services			
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
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

* Notes › See last page

Designation	Description	*	Art.-No.
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
Unit commissioning	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

* 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).

WolfLabs

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.

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