

Model KB 400 | 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 400



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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

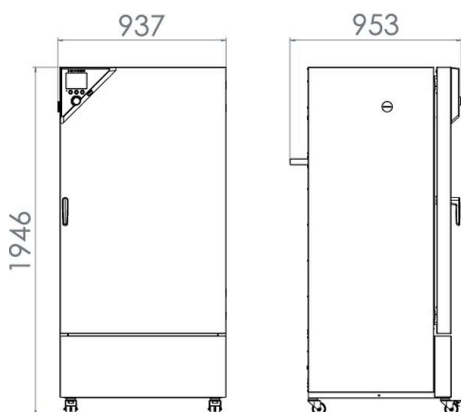
ORDERING INFORMATION

| Interior volume [L] | Voltage | Option model | Version | Art.-No. |
|---------------------|----------------------------|--------------|--------------|-----------|
| 400 | 200...240 V 1~ ph 50/60 Hz | Standard | KB400-230V | 9020-0203 |
| | 100...120 V 1~ ph 50/60 Hz | Standard | KB400UL-120V | 9020-0305 |

TECHNICAL DATA

| Description | KB400-230V ¹ | KB400UL-120V ¹ |
|--|-------------------------|---------------------------|
| Article Number | 9020-0203 | 9020-0305 |
| Performance Data Temperature | | |
| Temperature range | -10...100 | -10...100 |
| Temperature variation at 37 °C [± K] | 0.2 | 0.2 |
| Temperature fluctuation at 37 °C [± K] | 0.1 | 0.1 |
| Recovery time after 30 seconds door open at 37 °C [min] | 4 | 4 |
| Electrical data | | |
| Rated Voltage [V] | 200...240 | 100...120 |
| Power frequency [Hz] | 50/60 | 50/60 |
| Nominal power [kW] | 1.4 | 1.4 |
| Unit fuse [A] | 16 | 16 |
| Phase (Nominal voltage) | 1~ | 1~ |
| Measures | | |
| Interior volume [L] | 400 | 400 |
| Net weight of the unit (empty) [kg] | 220 | 220 |
| 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 | | |
| Width [mm] | 650 | 650 |
| Height [mm] | 1270 | 1270 |
| 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] | 1950 | 1950 |
| Depth net [mm] | 805 | 805 |
| Environment-specific data | | |
| Energy consumption at 37 °C [Wh/h] | 330 | 330 |
| Sound-pressure level [dB(A)] | 53 | 53 |
| 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 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 | * | Art.-No. |
|--|--|----|-----------|
| Access port with silicone plug | left | | |
| | 30 mm | 01 | 8012-0648 |
| | 50 mm | 01 | 8012-0653 |
| | right | | |
| | 30 mm | 01 | 8012-0647 |
| | 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 |
| Calibration certificate, temperature | for temperature, measurement in center of chamber at specified temperature | - | 8012-1139 |
| | temperature measurement incl. certificate and 27 measuring points at specified temperature | - | 8012-1598 |
| | 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 | * | 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 |
| | Basic set 900, length 90 cm | – | 8012-1109 |
| | 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 | Expansion set 900, length 90 cm | – | 8012-1718 |
| | concentrated, for gentle remove of residual contaminants; 1 kg | – | 1002-0016 |
| | | | |
| 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 |
| Rack | Hard copy inside folder | – | 7007-0005 |
| | stainless steel | – | 8012-2050 |
| Rack accessories | fasteners (1 set of 4) for additional security of racks | – | 8012-0620 |
| Rack, reinforced | stainless steel, with fasteners (1 set of 4) | – | 8012-0638 |
| Shelf, perforated | Stainless steel | – | 6004-0040 |
| 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. | – | 8500-0164 |

* Notes › See last page

SERVICES

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

* Notes › See last page

| Designation | Description | * | Art.-No. |
|--|--|------------|-----------------|
| 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 |
| Validation services | | | |
| 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 |
| Warranty service | | | |
| 1-year warranty extension | The warranty is extended by 1 year from the delivery date, wear parts are excluded | - | DL50-0010 |

* 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).

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