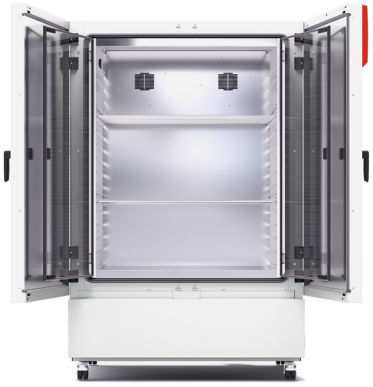
# Model KB ECO 720 | Refrigerated incubators with environmentally friendly thermoelectric cooling

**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 720



Model 720

## IMPORTANT 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
- Computer interface: Ethernet

## ORDERING INFORMATION

| Interior volume | | Power supply - unit fuse | Plug* | Version | Model version | Art.-No. |
|---|---|---|---|---|---|---|
| [cu.ft.] | [L] | | | | | |
| **Model KB ECO 720** | | | | | | |
| 25 | 700 | 200...230 V 1~ 50/60 Hz -16,0 A | CEE 7/7 | Standard | KBECO720-230V | 9020-0424 |
| | | 100...120 V 1~ 50/60 Hz -16,0 A | NEMA 5-20 | Standard | KBECO720UL-120V | 9020-0427 |

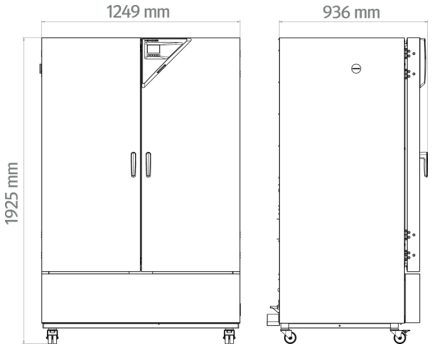
## TECHNICAL DATA

| | | |
|---|---|---|
| **Data** | | |
| Article Number | 9020-0424 | 9020-0427 |
| Designation | KBECO720-230V | KBECO720UL-120V |
| Option model | Standard | Standard |
| **Performance Data Temperature** | | |
| Temperature range | (max. 26 °C under ambient temperature) 0...70 °C | (max. 26 °C under ambient temperature) 0...70 °C |
| Temperature uniformity at 37°C | 0.1 ± K | 0.1 ± K |
| Temperature fluctuation at 37°C | 0.1 ± K | 0.1 ± K |
| Max. heat compensation at 40°C | 500 W | 500 W |
| Recovery time after door was opened for 30 s at 37°C | 4 min | 4 min |
| **Electrical data** | | |
| Rated Voltage | 200...230 V | 100...120 V |
| Power frequency | 50/60 Hz | 50/60 Hz |
| Nominal power | 1,3 kW | 1,3 kW |
| Unit fuse | 16,0 A | 16,0 A |
| Phase (Nominal voltage) | 1~ | 1~ |
| **Dimensions and weights** | | |
| Interior volume | 25 cu.ft. | 25 cu.ft. |
| Net weight of the unit (empty) | 600 lbs | 600 lbs |
| Load per rack | 99 lbs | 99 lbs |
| Permitted load | 331 lbs | 331 lbs |
| Wall clearance back | 3,94 in | 3,94 in |
| Wall clearance sidewise | 3,94 in | 3,94 in |
| **Housing dimensions not incl. fittings and connections** | | |
| Width net | 49.21 in | 49.21 in |
| Height net | 75.79 in | 75.79 in |
| Depth net | 34.84 in | 34.84 in |
| **Internal Dimensions** | | |
| Interior width | 38.31 in | 38.31 in |
| Interior height | 49.21 in | 49.21 in |

| | | |
|---|---|---|
| Interior depth | 22.68 in | 22.68 in |
| Inner doors | 2 | 2 |
| Unit doors | 2 | 2 |
| **Environment-specific data** | | |
| Sound-pressure level | 47 dB(A) | 47 dB(A) |
| Energy consumption at 25°C | 75 Wh/h | 75 Wh/h |
| Energy consumption at 37°C | 105 Wh/h | 105 Wh/h |
| **Fixtures** | | |
| Number of shelves (std./max.) | 2/15 | 2/15 |

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 | KB ECO 720 | * | Art.-No. |
|---|---|---|---|---|
| | left | | | |
| | 30 mm | • | 01 | 8012-2113 |
| | 50 mm | • | 01 | 8012-2120 |
| | 100 mm | • | 01 | 8012-2118 |
| Access port with silicone plug | right | | | |
| | 30 mm | • | 01 | 8012-2112 |
| | 50 mm | • | 01 | 8012-2119 |
| | 100 mm | • | 01 | 8012-2117 |
| | top | | | |

| Designation | Description | KB ECO 720 | * | Art.-No. |
|---|---|---|---|---|
| | 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, 9 measuring points at specified temperature | • | - | 8012-2108 |
| | temperature measurement incl. certificate, 15- 18 measuring points at specified temperature | • | - | 8012-2109 |
| | temperature measurement incl. certificate and 27 measuring points at specified temperature | • | - | 8012-2110 |
| Door lock | lockable door handle | • | - | 8012-2122 |

## ACCESSORIES

| Designation | Description | KB ECO 720 | * | 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 |
| 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 |
| | Expansion set 900, length 90 cm | • | - | 8012-1718 |

| Designation | Description | KB ECO 720 | * | Art.-No. |
|---|---|---|---|---|
| pH-neutral detergent | concentrated, for gentle remove of residual contaminants; 1 kg | • | - | 8012-2250 |
| Qualification documents IQ/OQ | IQ/OQ documents digital in PDF format – supporting documents for validation consisting of: IQ/OQ checklists, comprehensive unit documentation covering: temperature. Excluded: Document execution is separate | | | |
| | temperature. Excluded: Document execution is separate | • | - | 7057-0010 |
| Qualification documents IQ/OQ/PQ | IQ/OQ/PQ documents digital in PDF format – supporting documents for validation customizied to customer requirements, PQ section added to the qualification folder IQ/OQ; supporting documents for validation consisting of: IQ/OQ checklists, comprehensive unit documentation covering: temperature values. Excluded: Document execution is separate | | | |
| | temperature values. Excluded: Document execution is separate | • | - | 7057-0016 |
| Rack | stainless steel | • | - | 8012-2051 |
| Rack, reinforced | stainless steel, with fasteners (1 set of 4) | • | - | 8012-0674 |
| Shelf, perforated | Stainless steel | • | - | 8012-2252 |

## SERVICES

| Designation | Description | * | Art.-No. |
|---|---|---|---|
| **Calibration services** | | | |
| Temperature calibration | Calibration of one (1) test temperature specified by the user in center of chamber, including certificate Travel to be quoted separate. | 05 | DL30-0135 |
| | Extension of calibration of one (1) additional test temperature specified by the user in the center of the usable space, including certificate Travel to be quoted separate. | 05 | DL30-0102 |
| Temperature measurement, 9 measuring points | Temperature measurement with 9 measuring points with a set value specified by the user, including certificate. Travel to be quoted separate. A total of 3 shelves are required. | 05 | DL30-0109 |
| Temperature measurement, 18 measuring points | Temperature measurement with 18 measuring points with a set value specified by the user, including certificate. Travel to be quoted separate. A total of 2 shelves are required. | 05 | DL30-0118 |
| Temperature measurement, 27 measuring points | Temperature measurement with 27 measuring points with a set value specified by the user, including certificate. Travel to be quoted separate. A total of 3 shelves are required. | 05 | DL30-0127 |
| **Installation services** | | | |
| 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) Travel to be quoted as separate. | 05 | DL10-0170 |
| Unit instructions | Instruction regarding operating principle and basic functions of the unit, operation of the control electronics including programming. Travel to be quoted as separate Limited to 3 hours. | 05 | DL10-0550 |
| **Maintenance services** | | | |

| Designation | Description | * | Art.-No. |
|---|---|---|---|
| BRONZE 3-year maintenance contract | Annual Device Inspection Includes Preventive Maintenance with Calibration Certificate. 10% Discount on Spare Parts and Labor for any additional Services needed Wear + tear parts to be purchased or billed to customer. Travel to be quoted as separate. | 05 | DL20-0720 |
| GOLD 3-year maintenance contract | Annual Device Inspection Includes Preventive Maintenance with Calibration Certificate of Temperature. 25% Discount on Spare Parts and Labor for any additional Services needed. One additional courtesy visit per year can be used for service visit or operator. Wear + tear parts to be purchased or billed to customer. Travel to be quoted separate. | 05 | DL20-0945 |
| Preventive maintenance | One-off maintenance service in accordance with maintenance schedule. Visual inspection of mechanical and electrical components, testing of all key functions. Checking a test temperature specified by the user in center of usable space without certificate. Wear + tear parts need to be purchased or billed to customer. Travel to be quoted as separate. | 05 | DL20-0604 |
| SILVER 3-year maintenance contract | Annual Device Inspection Includes Preventive Maintenance with Calibration Certificate 15% Discount on Spare Parts and Labor for any additional Services needed One additional courtesy visit per year can be used for service visit or operator training. Wear + tear parts to be purchased or billed to customer. Travel to be quoted separate. | 05 | DL20-0845 |
| **Validation services** | | | |
| Execution of IQ/OQ | Execution of IQ/OQ in accordance with qualification folder. Travel to be quoted separate. | 05 | DL41-0200 |
| Execution of IQ/OQ/PQ | Execution of IQ/OQ/PQ in accordance with qualification folder. Travel to be quoted separate. | 05 | DL44-0500 |
| **Warranty service** | | | |
| 1-year warranty extension | The warranty is extended by 1 year from the delivery date, wear parts are excluded | 05 | DL50-0010 |

## NOTES

01 Condensation may occur in the area around the access port. Access ports may be placed in custom locations for an additional charge.

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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