# Model KB 65 | Refrigerated incubators with a large temperature range

**The powerful virtuoso in cooling incubators for microorganisms: KB units are able to incubate with exceptional precision even when fully loaded, feature a hot-air disinfection routine, and can be programmed for weekend operation with ease. The new KB unit consumes as much as 40% less energy than the previous model.**

## BENEFITS

- Assured: highly precise incubation conditions thanks to power reserves
- Reliable: failsafe operation over the long term thanks to proven compressor technology and interior made of stainless steel
- Smart: hot-air disinfection and easy programming of a second set temperature
- Economical: up to 40% lower energy consumption than the previous model thanks to modern inverter cooling technology



Model 65



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## IMPORTANT FEATURES

- Temperature range: 0 °C to +70 °C
- Proven APT.line™ preheating chamber technology
- Energy-efficient cooling with modern inverter cooling unit
- Cooling with climate-neutral R-600a refrigerant
- Door heating to prevent condensation
- Sturdy housing design with HIT sandwich technology
- Interior made completely of stainless steel
- Inner doors made of metal oxide-coated safety glass
- Two racks made of stainless steel
- Ø 30 mm access port with silicone plug
- Stackable
- Simple programming of a second set temperature value
- Internal data logger, measured values can be read out in open format via USB
- Class 3.3 independent temperature safety device (DIN 12880) with visual and acoustic alarms
- Unit self-test for comprehensive status analysis
- Data interfaces: Ethernet, USB

## ORDERING INFORMATION

| Interior volume | | Power supply - unit fuse | Plug* | Version | Model version | Art.-No. |
|---|---|---|---|---|---|---|
| [cu.ft.] | [L] | | | | | |
| **Model KB 65** | | | | | | |
| 2 | 63 | 220...240 V 1~ 50/60 Hz -16,0 A | CEE 7/7 | Standard | KB065-230V | 9020-0471 |
| | | 120 V 1~ 50/60 Hz -16,0 A | NEMA 5-20 | Standard | KB065UL-120V | 9020-0491 |

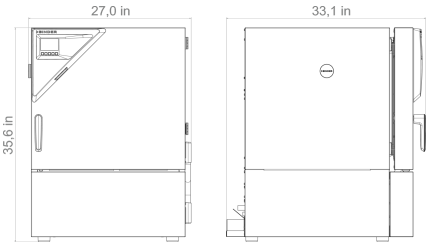
## TECHNICAL DATA

| | | |
|---|---|---|
| **Data** | | |
| Article Number | 9020-0471 | 9020-0491 |
| Designation | KB065-230V | KB065UL-120V |
| Option model | Standard | Standard |
| **Performance Data Temperature** | | |
| Temperature range | 0...70 °C | 0...70 °C |
| Temperature uniformity at 37°C | 0.2 ± K | 0.2 ± K |
| Temperature fluctuation at 37°C | 0.2 ± K | 0.2 ± K |
| Max. heat compensation at 37°C | 160 W | 160 W |
| Recovery time after door was opened for 30 s at 37°C | 3 min | 3 min |
| **Electrical data** | | |
| Rated Voltage | 220...240 V | 120 V |
| Power frequency | 50/60 Hz | 50/60 Hz |
| Nominal power | 0,9 kW | 0,9 kW |
| Unit fuse | 16,0 A | 16,0 A |
| Phase (Nominal voltage) | 1~ | 1~ |
| **Dimensions and weights** | | |
| Interior volume | 2 cu.ft. | 2 cu.ft. |
| Net weight of the unit (empty) | 209 lbs | 209 lbs |
| Load per rack | 66 lbs | 66 lbs |
| Permitted load | 198 lbs | 198 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 | 25.59 in | 25.59 in |
| Height net | 35.63 in | 35.63 in |
| Depth net | 27.95 in | 27.95 in |
| **Internal Dimensions** | | |
| Interior width | 15.98 in | 15.98 in |
| Interior height | 15.75 in | 15.75 in |

| | | |
|---|---|---|
| Interior depth | 15.2 in | 15.2 in |
| Inner doors | 1 | 1 |
| Unit doors | 1 | 1 |
| **Environment-specific data** | | |
| Sound-pressure level at 25°C | 44 dB(A) | 44 dB(A) |
| Energy consumption at 25°C | 80 Wh/h | 95 Wh/h |
| Energy consumption at 37°C | 90 Wh/h | 100 Wh/h |
| **Fixtures** | | |
| Number of shelves (std./max.) | 2/4 | 2/4 |

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 | KB 65 | * | Art.-No. |
|---|---|---|---|---|
| Access port with silicone plug | left | | | |
| | 30 mm | • | 01 | 8012-2465 |
| | 50 mm | • | 01 | 8012-2466 |
| | right | | | |
| | 30 mm | • | 01 | 8012-2468 |
| | 50 mm | • | 01 | 8012-2469 |
| | top | | | |
| | 30 mm | • | 01 | 8012-2497 |
| | 50 mm | • | 01 | 8012-2471 |
| | 100 mm | • | 01 | 8012-2472 |
| Alarm | accessible via 3-pin clamping sleeve (max. 24 V - 2.5 A) | • | - | 8012-2370 |

| Designation | Description | KB 65 | * | Art.-No. |
|---|---|---|---|---|
| Analog output 4-20 mA | for temperature values (output not adjustable) | • | - | 8012-2371 |
| Calibration certificate, expanded | for temperature; for extending the measurement in center of chamber to include another test temperature | • | - | 8012-2372 |
| Calibration certificate, temperature | for temperature, measurement in center of chamber at specified temperature | • | - | 8012-2571 |
| | temperature measurement incl. certificate, 9 measuring points at specified temperature | • | - | 8012-2376 |
| | temperature measurement incl. certificate, 15- 18 measuring points at specified temperature | • | - | 8012-2380 |
| | temperature measurement incl. certificate and 27 measuring points at specified temperature | • | - | 8012-2424 |
| Door lock | lockable door handle | • | - | 8012-2529 |
| Door lock, electromechanical | can be opened with PIN code via controller | • | - | 8012-2531 |
| Inner chamber, reinforced | max. total load 100 kg | • | - | 8012-2505 |
| Interior lighting | With climate-resistant LEDs, switches when the unit door is opened | • | - | 8012-2555 |
| Specimen temperature display | Flexible Pt 100 indoor temperature sensor, for object temperature display or control | • | - | 8012-2549 |

## ACCESSORIES

| Designation | Description | KB 65 | * | 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 |
| Base | With swivel casters, for mobile installation or leveling of the unit or stack of units | • | - | 9051-0055 |
| 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 |
| | 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 |
| pH-neutral detergent | concentrated, for gentle remove of residual contaminants; 1 kg | • | - | 8012-2250 |

| Designation | Description | KB 65 | * | Art.-No. |
|---|---|---|---|---|
| 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 |
| Shelf rack, perforated | Shelf rack in set with pair of retaining rails (U rails), made entirely of stainless steel | | | |
| | Load-bearing capacity 25 kg | • | - | 8012-2405 |
| Stacking adapter | For safe stacking of two identical units | • | - | 9051-0056 |
| Standard rack | Shelf rack in set with pair of retaining rails (U rails), made entirely of stainless steel | | | |
| | Load-bearing capacity 25 kg | • | - | 8012-2388 |

## 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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