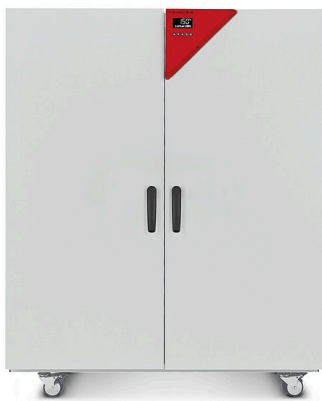


# Model BF 720 | Standard-Incubators with forced convection

The BINDER incubator of the BF Avantgarde.Line series with forced convection is suitable for all gentle incubation applications, particularly under a full load and large batch throughputs. This incubator is extremely homogeneous and has quick recovery times.

## BENEFITS

- Excellent temporal and spatial temperature accuracy
- High process reliability
- 100 °C disinfection routine



Model 720



Model 115

## MAIN FEATURES

- Temperature range: +7-8 °C above ambient temperature to +100 °C
- High temperature accuracy thanks to APT.line™ technology
- Forced convection
- Controller with LCD display
- Electromechanical control of the exhaust air flap
- Inner door made of tempered safety glass
- 2 chrome-plated racks
- Units up to 115 L are stackable
- 4 stable castors, two with brakes, from 720 liters
- Class 3.1 integrated independent temperature safety device (DIN 12880) with visual alarm
- Ergonomic handle design
- USB port for recording data

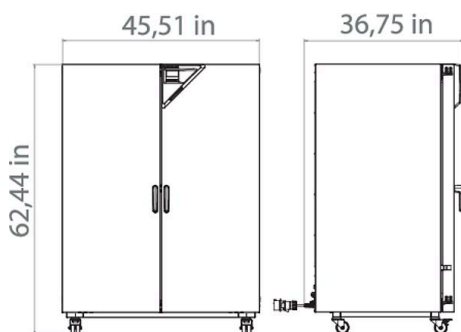
## ORDERING INFORMATION

| Interior volume [cu.ft.] | Voltage           | Option model | Version      | Art.-No.  |
|--------------------------|-------------------|--------------|--------------|-----------|
| 25.9                     | 230 V 1~ 50/60 Hz | Standard     | BF720-230V   | 9010-0321 |
|                          | 240 V 1~ 60 Hz    | Standard     | BF720UL-240V | 9010-0322 |

**TECHNICAL DATA**

| Description  | BF720-230V <sup>1</sup> | BF720UL-240V <sup>1</sup> |
|--|-------------------------|---------------------------|
| <b>Article Number</b>  | <b>9010-0321</b>        | <b>9010-0322</b>          |
| <b>Performance Data Temperature</b>                          |                         |                           |
| Temperature range +10 °C above ambient temperature to [°C]   | 100                     | 100                       |
| Temperature variation at 37 °C [± K]                         | 0.3                     | 0.3                       |
| Temperature fluctuation at 37 °C [± K]                       | 0.1                     | 0.1                       |
| Heating-up time to 37 °C [min]                               | 15                      | 15                        |
| Recovery time after 30 seconds door open at 37 °C [min]      | 4                       | 4                         |
| <b>Electrical data</b>                                       |                         |                           |
| Rated Voltage [V]  | 230                     | 240                       |
| Power frequency [Hz]   | 50/60                   | 60                        |
| Nominal power [kW]   | 1.75                    | 1.85                      |
| Phase (Nominal voltage)                                      | 1~                      | 1~                        |
| <b>Measures</b>  |                         |                           |
| Interior volume [cu.ft.]                                     | 25.9                    | 25.9                      |
| Net weight of the unit (empty) [lbs]                         | 364                     | 364                       |
| Permitted load [lbs]   | 694                     | 694                       |
| Load per rack [lbs]  | 99                      | 99                        |
| Wall clearance back [in]                                     | 6.3                     | 6.3                       |
| Wall clearance sidewise [in]                                 | 3.94                    | 3.94                      |
| <b>Internal Dimensions</b>                                   |                         |                           |
| Width [in]   | 39.4                    | 39.4                      |
| Height [in]  | 51.2                    | 51.2                      |
| Depth [in]   | 22.26                   | 22.26                     |
| <b>Doors</b>   |                         |                           |
| Inner doors  | 2                       | 2                         |
| Unit doors   | 2                       | 2                         |
| <b>Housing dimensions not incl. fittings and connections</b> |                         |                           |
| Width net [in]   | 45.9                    | 45.9                      |
| Height net [in]  | 62.6                    | 62.6                      |
| Depth net [in]   | 34.28                   | 34.28                     |
| <b>Environment-specific data</b>                             |                         |                           |
| Energy consumption at 37 °C [Wh/h]                           | 130                     | 130                       |
| Sound-pressure level [dB(A)]                                 | 43                      | 43                        |
| <b>Fixtures</b>  |                         |                           |
| Number of shelves (std./max.)                                | 2/16                    | 2/16                      |

<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 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. 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.  |
|---|---|-----------|-----------|
| <b>Access port with silicone plug</b>       | left  |           |           |
|   | 10 mm   | 01        | 8012-1274 |
|   | 30 mm   | 01        | 8012-1156 |
|   | 50 mm   | 01        | 8012-1164 |
|   | right   |           |           |
|   | 10 mm   | 01        | 8012-1267 |
|   | 30 mm   | 01        | 8012-1153 |
|   | 50 mm   | 01        | 8012-1162 |
|   | top   |           |           |
|   | 10 mm   | 01        | 8012-1261 |
|   | 30 mm   | 01        | 8012-1150 |
|   | 50 mm   | 01        | 8012-1159 |
| 100 mm                                      | 01  | 8012-1166 |           |
| <b>Alarm function for overheating</b>       | Switchable acoustic alarm, with adjustable limit value on the independent temperature safety device     | -         | 8012-1634 |
| <b>Analog output 4-20 mA</b>                | for temperature values (output not adjustable)  | 02        | 8012-1622 |
| <b>Calibration certificate, expanded</b>    | for temperature; for extending the measurement in center of chamber to include another test temperature | -         | 8012-1111 |
| <b>Calibration certificate, temperature</b> | for temperature, measurement in center of chamber at specified temperature                              | -         | 8012-1130 |
|   | temperature measurement incl. certificate and 27 measuring points at specified temperature              | -         | 8012-1590 |
|   | temperature measurement incl. certificate, 15- 18 measuring points at specified temperature             | -         | 8012-1569 |
|   | temperature measurement incl. certificate, 9 measuring points at specified temperature                  | -         | 8012-1548 |
| <b>Clock</b>                                | battery-backed  | -         | 8012-1639 |
| <b>Door lock</b>                            | lockable door handle  | -         | 8012-1816 |
| <b>Ethernet interface</b>                   | for Multi Management Software APT-COM™  | -         | 8012-0991 |
| <b>Inner chamber, reinforced</b>            | max. total load 350 kg  | -         | 8012-1829 |
| <b>Pt 100 temperature sensor</b>            | additional flexible Pt 100, interior, for displaying the temperature on the unit display                | -         | 8012-1618 |

\* Notes › See last page

**ACCESSORIES**

| Designation                      | Description  | * | Art.-No.  |
|----------------------------------|--|---|-----------|
| <b>Multi Management Software</b> | Multi Management Software APT-COM™                             |   |           |
|                                  | 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, CO <sub>2</sub> , O <sub>2</sub> , 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 <sub>2</sub> , O <sub>2</sub> – or pressure, depending on unit     |   |           |
| <b>Rack</b>                    | Digital in PDF format   | – | 7057-0005 |
|                                | Hard copy inside folder   | – | 7007-0005 |
| <b>Rack</b>                    | chrome plated   | – | 8012-2044 |
|                                | stainless steel   | – | 6004-0155 |
| <b>Rack, heavy load</b>        | Stainless steel, max. load per rack 70 kg   | – | 6004-0204 |
| <b>Shelf, perforated</b>       | Stainless steel   | – | 6004-0187 |

\* 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         | DL40-0100 |
| Execution of IQ/OQ/PQ                        | Execution of IQ/OQ/PQ in accordance with qualification folder   | 05         | DL44-0500 |
| <b>Warranty service</b>                      |   |            |           |
| Warranty extension from 2 to 3 years         | 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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