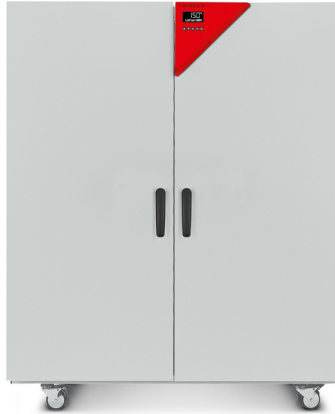


Model BF 720 | Standard-Incubators with forced convection

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

IMPORTANT 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		Power supply - unit fuse	Plug*	Version	Model version	Art.-No.
[L]	[L]					
Model BF 720						
		230 V 1~ 50/60 Hz -	CEE 7/7	Standard	BF720-230V	9010-0321
734	734	240 V 1~ 60 Hz -	NEMA 6-20	Standard	BF720UL-240V	9010-0322

TECHNICAL DATA

Data		
Designation	BF720-230V	BF720UL-240V
Article Number	9010-0321	9010-0322
Option model	Standard	Standard
Performance Data Temperature		
Temperature range	+10 °C above ambient temperature to 100 °C	+10 °C above ambient temperature to 100 °C
Temperature uniformity at 100°C	1.6 ± K	1.6 ± K
Temperature uniformity at 37°C	0.3 ± K	0.3 ± K
Temperature fluctuation at 100°C	0.2 ± K	0.2 ± K
Temperature fluctuation at 37°C	0.1 ± K	0.1 ± K
Heating up time to 100°C	45 min	45 min
Heating up time to 37°C	15 min	15 min
Recovery time after door was opened for 30 s at 37°C	4 min	4 min
Electrical data		
Rated Voltage	230 V	240 V
Power frequency	50/60 Hz	60 Hz
Nominal power	1,75 kW	1,85 kW
Phase (Nominal voltage)	1~	1~
Measures		
Interior volume	734 L	734 L
Net weight of the unit (empty)	166 kg	166 kg
Load per rack	45 kg	45 kg
Permitted load	315 kg	315 kg
Wall clearance back	160 mm	160 mm
Wall clearance sidewise	100 mm	100 mm
Housing dimensions not incl. fittings and connections		
Width net	1,165 mm	1,165 mm
Height net	1,590 mm	1,590 mm
Depth net	870 mm	870 mm
Internal Dimensions		

Interior width	1,000 mm	1,000 mm
Interior height	1,300 mm	1,300 mm
Interior depth	565 mm	565 mm
Inner doors	2	2
Unit doors	2	2

Environment-specific data

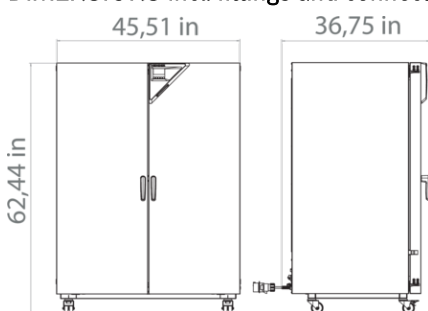
Sound-pressure level	43 dB(A)	43 dB(A)
Energy consumption at 100°C	580 Wh/h	580 Wh/h
Energy consumption at 37°C	130 Wh/h	130 Wh/h

Fixtures

Number of shelves (std./max.)	2/16	2/16
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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	BF 720	*	Art.-No.
	left			
	10 mm	•	01	8012-1274
	30 mm	•	01	8012-1156
	50 mm	•	01	8012-1164
Access port with silicone plug	right			
	10 mm	•	01	8012-1267
	30 mm	•	01	8012-1153
	50 mm	•	01	8012-1162

Designation	Description	BF 720	*	Art.-No.
	top			
	10 mm	•	01	8012-1261
	30 mm	•	01	8012-1150
	50 mm	•	01	8012-1159
	100 mm	•	01	8012-1166
Alarm function for overheating	Switchable acoustic alarm, with adjustable limit value on the independent temperature safety device	•	-	8012-1634
Analog output 4-20 mA	for temperature values (output not adjustable)	•	02	8012-1622
Calibration certificate, expanded	for temperature; for extending the measurement in center of chamber to include another test temperature	•	-	8012-1111
	for temperature, measurement in center of chamber at specified temperature	•	-	8012-1130
Calibration certificate, temperature	temperature measurement incl. certificate, 9 measuring points at specified temperature	•	-	8012-1548
	temperature measurement incl. certificate, 15- 18 measuring points at specified temperature	•	-	8012-1569
	temperature measurement incl. certificate and 27 measuring points at specified temperature	•	-	8012-1590
Clock	battery-backed	•	-	8012-1639
Door lock	lockable door handle	•	-	8012-1816
Ethernet interface	for Multi Management Software APT-COM™	•	-	8012-0991
Inner chamber, reinforced	max. total load 350 kg	•	-	8012-1829
Pt 100 temperature sensor	additional flexible Pt 100, interior, for displaying the temperature on the unit display	•	-	8012-1618

ACCESSORIES

Designation	Description	BF 720	*	Art.-No.
	Multi Management Software APT-COM™			
APT-COM™ 4	version 4, BASIC edition	•	-	9053-0039
	version 4, GLP edition	•	-	9053-0042
	version 4, PROFESSIONAL edition	•	-	9053-0040
Qualification documents	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

Designation	Description	BF 720	*	Art.-No.
	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
	max. load per rack 45 kg			
Rack	chrome plated	•	-	8012-2044
	stainless steel	•	-	8012-2170
	max. load per rack 70 kg			
Rack, heavy load	Stainless steel	•	-	8012-2185
	max. load per rack 40 kg			
Shelf, perforated	Stainless steel	•	-	8012-2178
pH-neutral detergent	concentrated, for gentle remove of residual contaminants; 1 kg	•	-	8012-2250

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.	–	DL30-0101
	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.	–	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.	–	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.	–	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.	–	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.	–	DL10-0100
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.	–	DL10-0500
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.	–	DL20-0710
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.	–	DL20-0910
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.	–	DL20-0200
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.	–	DL20-0810
Validation services			
Execution of IQ/OQ	Execution of IQ/OQ in accordance with qualification folder. Travel to be quoted separate.	–	DL40-0100
Execution of IQ/OQ/PQ	Execution of IQ/OQ/PQ in accordance with qualification folder. Travel to be quoted separate.	–	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

- 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.

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