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.
[cu.ft.]	[L]					
Model BF 720						
26	734	230 V 1~ 50/60 Hz -	CEE 7/7	Standard	BF720-230V	9010-0321
		240 V 1~ 60 Hz -	NEMA 6-20	Standard	BF720UL-240V	9010-0322

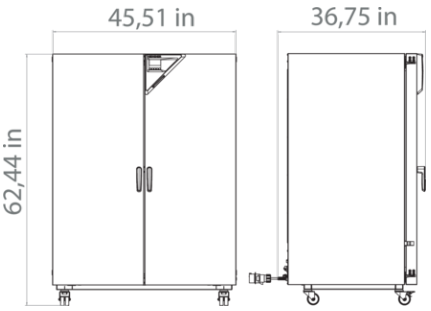
TECHNICAL DATA

Data		
Article Number	9010-0321	9010-0322
Designation	BF720-230V	BF720UL-240V
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 37°C	0.3 ± K	0.3 ± K
Temperature uniformity at 100°C	1.6 ± K	1.6 ± K
Temperature fluctuation at 37°C	0.1 ± K	0.1 ± K
Temperature fluctuation at 100°C	0.2 ± K	0.2 ± 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~
Dimensions and weights		
Interior volume	26 cu.ft.	26 cu.ft.
Net weight of the unit (empty)	366 lbs	366 lbs
Load per rack	99 lbs	99 lbs
Permitted load	694 lbs	694 lbs
Wall clearance back	6,3 in	6,3 in
Wall clearance sidewise	3,94 in	3,94 in
Housing dimensions not incl. fittings and connections		
Width net	45.87 in	45.87 in
Height net	62.6 in	62.6 in
Depth net	34.25 in	34.25 in
Internal Dimensions		

Interior width	39.37 in	39.37 in
Interior height	51.18 in	51.18 in
Interior depth	22.24 in	22.24 in
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

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.
Access port with silicone plug	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

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
Calibration certificate, temperature	for temperature, measurement in center of chamber at specified temperature	•	-	8012-1130
	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.
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
pH-neutral detergent	concentrated, for gentle remove of residual contaminants; 1 kg	•	-	8012-2250

Designation	Description	BF 720	*	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
Rack	max. load per rack 45 kg			
	chrome plated	•	-	8012-2044
	stainless steel	•	-	8012-2170
Rack, heavy load	max. load per rack 70 kg			
	Stainless steel	•	-	8012-2185
Shelf, perforated	max. load per rack 40 kg			
	Stainless steel	•	-	8012-2178

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	DL30-0120
	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	DL10-0160

Designation	Description	*	Art.-No.
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	DL10-0540
Maintenance services			
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	DL20-0910
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.	05	DL20-0602
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	DL20-0810
Validation services			
Execution of IQ/OQ	Execution of IQ/OQ in accordance with qualification folder. Travel to be quoted separate.	05	DL40-0100
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.

02 UL mark is not granted when this option is used.

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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