

# Model BF 400 | Standard-Incubators with forced convection

The BINDER incubator of the BF series with mechanical 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**

- · Safe and reproducible incubation even under high batch throughputs in long-term operation
- · Disinfection routine at 100 °C
- · Stable atmosphere by inner glass door



Model 400

## MAIN FEATURES

- Temperature range: room temperature plus 5 °C to 100 °C
- APT.line™ preheating chamber technology
- · Adjustable fan speed
- · Adjustable exhaust air flap
- · Controller with timer functions
- Inner door made of tempered safety glass
- 2 chrome-plated racks
- Class 3.1 independent temperature safety device (DIN 12880) with visual temperature alarm
- Computer interface: RS 422

#### ORDERING INFORMATION

Interior volume [L]	Voltage	Option model	Version	ArtNo.
Model BF 400				
400	230 V 1~ ph 50/60 Hz	Standard	BF400-230V	9010-0241
	120 V 1~ ph 60 Hz	Standard	BF400UL-120V	9010-0242

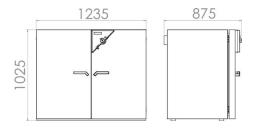


#### **TECHNICAL DATA**

Description	BF400-230V <sup>1</sup>	BF400UL-120V <sup>1</sup>
Article Number	9010-0241	9010-0242
Performance Data Temperature		
Temperature range 5 °C above ambient temperature to [°C]	100	100
Temperature variation at 37 °C [± K]	0.4	0.4
Temperature fluctuation at 37 °C [± K]	0.1	0.1
Heating-up time to 37 °C [min]	12	12
Recovery time after 30 seconds door open at 37 °C [min]	5	5
Electrical data		
Rated Voltage [V]	230	120
Power frequency [Hz]	50/60	60
Nominal power [kW]	0.85	0.85
Unit fuse [A]	12.5	12.5
Phase (Nominal voltage)	1~	1~
Internal Dimensions		
Depth [mm]	500	500
Height [mm]	800	800
Width [mm]	1000	1000
Housing dimensions not incl. fittings and connections		
Width net [mm]	1235	1235
Height net [mm]	1025	1025
Depth net [mm]	765	765
Measures		
Wall clearance back [mm]	160	160
Wall clearance sidewise [mm]	100	100
Interior volume [L]	400	400
Net weight of the unit (empty) [kg]	145	145
permitted load [kg]	90	90
Load per rack [kg]	35	35
Doors		
Unit doors	2	2
Environment-specific data		
Energy consumption at 37 °C [Wh/h]	56	56
Fixtures		
Number of shelves (std./max.)	2/9	2/9

<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 AND ACCESSORIES**

Designation	Description	*	ArtNo.
	back		
	10 mm	01	8012-1281
	30 mm	01	8012-1291
	50 mm	01	8012-1293
	left		
	10 mm	01	8012-1274
	30 mm	01	8012-1156
A	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
	top		
	10 mm	01	8012-1261
	30 mm	01	8012-1150
	50 mm	01	8012-1159
	100 mm	01, 10	8012-1166
Alarm function for	Switchable acoustic alarm, with adjustable limit value on the independent temperature safety device		
overheating	120 V option model	-	8012-1302
	230 V option model	-	8012-1298
Analog output 4-20 mA	for temperature values (output not adjustable)	-	8012-0482
APT-COM™ 4 BASIC-	for simple logging and documentation requirements with up to 5 networked units.		
Edition	version 4, BASIC edition	19	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	19	9053-0042
APT-COM™ 4 PROFESSIONAL-	convenient unit and user management built on the BASIC edition. Suitable for networking up to 100 units.		
Edition	version 4, PROFESSIONAL edition	19	9053-0040
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 measurement incl. certificate and 27 measuring points at specified temperature	-	8012-1590
temperature	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
Data Logger Kit	T 220: For continuous temperature logging from -90 °C to 220 °C. The kit includes 1 data logger, Pt 100 sensor with 2 m extension cable and 1 magnetic fixture for mounting to the BINDER unit		8012-0715
Data Logger Software	LOG ANALYZE software kit, configuration and evaluation software for all BINDER Data Logger Kits (incl. USB data cable)	19	8012-0821
Door lock	lockable door handle	-	8012-1252
Inner chamber, reinforced	including 2 reinforced racks	-	8012-1732
Interior socket	Waterproof, switched flush-mounting box (CA3GD) for nominal voltage in unit interior, with cover and corresponding plug (nominal voltage; max. 500 W; max. 90 $^{\circ}$ C; protection class IP67)	07	8012-1170
pH-neutral detergent	concentrated, for gentle remove of residual contaminants; 1 kg	-	1002-0016
Pt 100 temperature sensor	additional flexible Pt 100, interior, with external connection incl. LEMO connector (3-pin)	_	8012-1172
Dools	chrome plated	-	6004-0005
Rack	stainless steel	-	6004-0011
Rubber pads	set anti-slip feet	-	8012-1887
Shelf, perforated	Stainless steel	-	6004-0032
Table on castors	stable cart, casters with locking brakes, dimensions: W 1,300 x D 800 x H 780 mm	_	9051-0019

<sup>\*</sup> Notes > See last page



## **SERVICES**

Description	*	ArtNo.
unit function instructions for operation and programming of the controller	18	DL10-0500
Executive of equipment inspection according to maintenance plan	14, 18	DL20-0200
including certificate, one measuring point in center of chamber at specified temperature	14, 16, 17, 18	DL30-0101
including certificate, 18 measuring points at specified temperature	14, 16, 17, 18	DL30-0118
including certificate, 27 measuring points at specified temperature	14, 16, 17, 18	DL30-0127
including certificate, 9 measuring points at specified temperature	14, 16, 17, 18	DL30-0109
in accordance with qualification folder	15, 18, 20	DL40-0100
in accordance with customer's requirement, price: on request	15, 18	DL44-0500
supporting documents for validation performed by customer, consisting of: IQ/OQ checklists, unit schematics, QM certificate in accordance with ISO 9001	15, 18, 20	8012-0871
supporting documents for validation performed by customer, in accordance with customer's requirement, extension of Qualification folder IQ/OQ by chapter PQ	15, 18	8012-0959
beginning with the date of delivery, wearing parts are not included	-	DL01-704
beginning with the date of delivery, wearing parts are not included	-	DL01-7042
	unit function instructions for operation and programming of the controller  Executive of equipment inspection according to maintenance plan  including certificate, one measuring point in center of chamber at specified temperature  including certificate, 18 measuring points at specified temperature  including certificate, 27 measuring points at specified temperature  including certificate, 9 measuring points at specified temperature  in accordance with qualification folder  in accordance with customer's requirement, price: on request  supporting documents for validation performed by customer, consisting of: IQ/OQ checklists, unit schematics, QM certificate in accordance with ISO 9001  supporting documents for validation performed by customer, in accordance with customer's requirement, extension of Qualification folder IQ/OQ by chapter PQ  beginning with the date of delivery, wearing parts are not included	unit function instructions for operation and programming of the controller  18  Executive of equipment inspection according to maintenance plan  14, 18  including certificate, one measuring point in center of chamber at specified temperature  14, 16, 17, 18  including certificate, 18 measuring points at specified temperature  14, 16, 17, 18  including certificate, 27 measuring points at specified temperature  14, 16, 17, 18  including certificate, 9 measuring points at specified temperature  14, 16, 17, 18  in accordance with qualification folder  15, 18, 20  in accordance with customer's requirement, price: on request  15, 18  supporting documents for validation performed by customer, consisting of: IQ/OQ checklists, unit 20  supporting documents for validation performed by customer, in accordance with customer's requirement, extension of Qualification folder IQ/OQ by chapter PQ  15, 18  beginning with the date of delivery, wearing parts are not included  -

<sup>\*</sup> Notes > See last page



Pricing on any accessories shown can be found by keying the part number into the search box on our website.

The specifications listed in this brochure are subject to change by the manufacturer and therefore cannot be guaranteed to be correct. If there are aspects of the specification that must be guaranteed, please provide these to our sales team so that details can be confirmed.

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Please contact us if this literature doesn't answer all your questions.