

## Model BF 115 | Standard-Incubators with forced convection

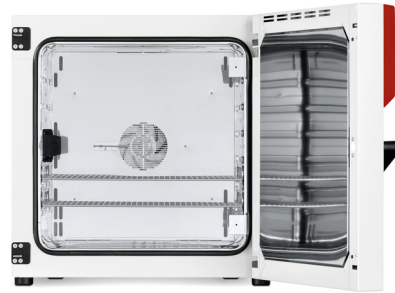
The BINDER incubator of the BF Avantgarde.Line series with forced convection is suitable for all gentle incubation applications, particularly under a full load and large batch throughputs. This incubator is extremely homogeneous and has quick recovery times.

### BENEFITS

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



Model 115



Model 115

### IMPORTANT FEATURES

- Temperature range: +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
- Stackable
- 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 [L]	Power supply - unit fuse	Plug*	Version	Model version	Art.-No.
<b>Model BF 115</b>					
114	230 V 1~ 50/60 Hz -6,3 A	CEE 7/7	Standard	BF115-230V	9010-0315
	120 V 1~ 60 Hz -12,5 A	NEMA 5-15	Standard	BF115UL-120V	9010-0316

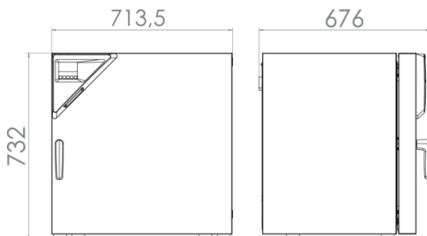
## TECHNICAL DATA

Data		
Designation	BF115-230V	BF115UL-120V
Article Number	9010-0315	9010-0316
Option model	Standard	Standard
Performance Data Temperature		
Temperature range	+8 °C above ambient temperature to 100 °C	+8 °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	65 min	65 min
Heating up time to 37°C	8 min	8 min
Recovery time after door was opened for 30 s at 37°C	3 min	3 min
Electrical data		
Rated Voltage	230 V	120 V
Power frequency	50/60 Hz	60 Hz
Nominal power	0,4 kW	0,4 kW
Unit fuse	6,3 A	12,5 A
Phase (Nominal voltage)	1~	1~
Dimensions and weights		
Interior volume	114 L	114 L
Net weight of the unit (empty)	54 kg	54 kg
Load per rack	30 kg	30 kg
Permitted load	150 kg	150 kg
Wall clearance back	160 mm	160 mm
Wall clearance sidewise	100 mm	100 mm
Housing dimensions not incl. fittings and connections		
Width net	710 mm	710 mm
Height net	725 mm	725 mm

Depth net	605 mm	605 mm
<b>Internal Dimensions</b>		
Interior width	550 mm	550 mm
Interior height	550 mm	550 mm
Interior depth	380 mm	380 mm
Inner doors	1	1
Unit doors	1	1
<b>Environment-specific data</b>		
Sound-pressure level	43 dB(A)	43 dB(A)
Energy consumption at 100°C	235 Wh/h	235 Wh/h
Energy consumption at 37°C	60 Wh/h	60 Wh/h
<b>Fixtures</b>		
Number of shelves (std./max.)	2/5	2/5

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 115	*	Art.-No.
	left			
	10 mm	•	01	8012-1274
	30 mm	•	01	8012-1156
Access port with silicone plug	50 mm	•	01	8012-1164
	right			
	10 mm	•	01	8012-1267
	30 mm	•	01	8012-1153

Designation	Description	BF 115	*	Art.-No.
	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
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	•	-	8012-1663
Ethernet interface	for Multi Management Software APT-COM™	•	-	8012-0990
Gas-tight option model	Incl. additional measures for the greatest possible impermeability to gas; not in conjunction with access port or interior lighting option	•	-	8012-1045
Inert gas connection	With gas inlet and outlet, Ø 10 mm, incl. additional measures for the greatest possible impermeability to gas; not in conjunction with access port or interior lighting option	•	-	8012-1048
Pt 100 temperature sensor	additional flexible Pt 100, interior, for displaying the temperature on the unit display	•	-	8012-1618

## ACCESSORIES

Designation	Description	BF 115	*	Art.-No.
	for simple logging and documentation requirements with up to 5 networked units.			
APT-COM™ 4 BASIC-Edition	version 4, BASIC edition	•	-	9053-0039
	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.			
APT-COM™ 4 GLP-Edition	version 4, GLP edition	•	-	9053-0042

Designation	Description	BF 115	*	Art.-No.
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
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 <sub>2</sub> , O <sub>2</sub> – or pressure, depending on unit			
	Digital in PDF format	•	-	7057-0005
	Hard copy inside folder	•	-	7007-0005
	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
Rack	max. load per rack 30 kg			
	chrome plated	•	-	8012-2040
	stainless steel	•	-	8012-2168
Rubber pads	set anti-slip feet	•	-	8012-2030
Shelf, perforated	max. load per rack 30 kg			
	Stainless steel	•	-	8012-2176
Table on castors	stable cart, casters with locking brakes, dimensions: W 1,000 x D 800 x H 780 mm	•	-	9051-0018

## SERVICES

Designation	Description	*	Art.-No.
<b>Calibration services</b>			
Calibration certificate, temperature	Calibration of one (1) test temperature specified by the user in center of chamber, including certificate	–	DL30-0120
	Extension of calibration of one (1) additional test temperature specified by the user in the center of the usable space, including certificate	–	DL30-0102
Temperature measurement, 9 measuring points	Temperature measurement with 9 measuring points with a set value specified by the user, including certificate	–	DL30-0109
Temperature measurement, 18 measuring points	Temperature measurement with 18 measuring points with a set value specified by the user, including certificate	–	DL30-0118
Temperature measurement, 27 measuring points	Temperature measurement with 27 measuring points with a set value specified by the user, including certificate	–	DL30-0127
<b>Installation services</b>			

Designation	Description	*	Art.-No.
Unit commissioning	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)	–	DL10-0100
Unit instructions	Instruction regarding operating principle and basic functions of the unit, operation of the control electronics including programming	–	DL10-0500
<b>Maintenance contracts</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	–	DL20-0720
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	–	DL20-0910
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	–	DL20-0810
<b>Maintenance services</b>			
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	–	DL20-0602
<b>Validation services</b>			
Execution of IQ/OQ	Execution of IQ/OQ in accordance with qualification folder	–	DL40-0100
Execution of IQ/OQ/PQ	Execution of IQ/OQ/PQ in accordance with qualification folder	–	DL44-0500
<b>Warranty service</b>			
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.

### **BINDER GmbH**

Tuttlingen, Germany  
TEL +49 7462 2005 0  
info@binder-world.com  
www.binder-world.com

### **BINDER Inc.**

Bohemia, NY, USA  
TEL +1 631 224 4340  
usa@binder-world.com  
www.binder-world.us

### **BINDER Environmental Testing Equipment (Shanghai) Co., Ltd.**

Shanghai, P.R. China  
TEL +86 21 685 808 25  
china@binder-world.com  
www.binder-world.com

### **BINDER Asia Pacific (Hong Kong) Ltd.**

Kowloon, Hong Kong, P.R. China  
TEL +852 39070500  
asia@binder-world.com  
www.binder-world.com



**Helago-CZ s.r.o.**  
Kladská 1082  
500 03 Hradec Králové  
Tel.: 495 220 229, 495 220 394  
Fax: 495 220 154  
<http://www.helago-cz.cz>  
E-mail: info@helago-cz.cz