

Standard-Incubators



Avantgarde.Line BD | BF series

Classic.Line B| BD| BF series

Solid.Line BD-S series





PRODUCT SELECTION INCUBATORS

	Classic.Line	Classic.Line	Avantgarde.Line	Solid.Line	Classic.Line	Avantearde.Line
Series	B > Page 18	BD > Page 20	BD > Page 6	BD-S > Page 30	BF → Page 22	BF → Page 9
Model	1				1	
Model 23	-	•	-	-	-	-
Model 28	•	-	-	-	-	-
Model 53	-	-	-	-	-	-
Model 56	-	-	•	•	-	•
Model 115	-	-	•	•	-	•
Model 260	-	-	•	-	-	•
Model 400	-	•	-	-	•	-
Model 720	-	-	•	-	-	•
General data						
Temperature range [°C]	3070	-	-	_	-	-
Temperature range 5 °C above ambient temperature to [°C]	-	100	100	70	100	-
Temperature range 7-8 °C above ambient temperature to [°C]	-	-	-	-	-	100
Temperature range 10 °C above ambient temperature to [°C]	-	-	-	-	-	100
Interface	-	RS 422	USB	-	RS 422	USB
Natural convection	•	•	•	•	-	-
Forced convection	-	-	-	-	•	•
Controller and timer functions						
Controller display	analog	LED	LCD	LED	LED	LCD
Ramp function	-	•	•	•	•	•
Time delayed OFF	-	•	•	•	•	•
Time delayed ON	-	-	•	-	•	•
Temperature dependent delayed OFF	-	-	•	-	•	•
Adjustable fan speed	-	-	-	-	•	•
Real-time clock	-	-	0	-	-	0
Class 3.1 independent temperature safety device	-	•	•	•	•	•
Temperature alarm, acoustic	-	0	0	-	0	0
Temperature alarm, visual	-	•	•	•	•	•
Standard equipment O Option						

Incubators Avantgarde.Line

Series BD Avantgarde.Line	Page 6
Series BF Avantgarde.Line	Page 9
Options and Accessories	Page 12

The completely redesigned Avantgarde. Line incubators with natural convection or forced convection are now the perfect solution when it comes to meeting growth and incubation requirements. With their exceptional efficiency and perfect temperature accuracy thanks to the very latest APT. line™ technology, this new generation of incubators has real appeal.

PRODUCT SELECTION INCUBATORS AVANTGARDE.LINE

Features	Series BD Avantgarde.Line Page 6	Series BF Avantgarde.Line Page 9
Model		
Model 56	•	•
Model 115	•	•
Model 260	•	•
Model 720	•	•
General data		
Temperature range 5 °C above ambient tempera- ture to [°C]	100	-
Temperature range 7-8 °C above ambient tempe- rature to [°C]	-	100
Temperature range 10 °C above ambient tempe- rature to [°C]	-	100
USB interface	•	•
Natural convection	•	-
Forced convection	-	•
Controller and timer functions		
Controller display	LC	CD
Ramp function	•	•
Time delayed OFF	•	•
Time delayed ON	•	•
Femperature dependent delayed OFF	•	•
Adjustable fan speed	-	•
Class 3.1 independent temperature safety device	•	•
Temperature alarm, visual	•	•

 $[\]bullet \textbf{Standard equipment} \\$

ADVANTAGES AT A GLANCE



EASY DATA LOGGING

Series BD, BF

A USB connector comes standard.



BEST ENERGY EFFICIENCY ON THE MARKET AND LOW INSTALLATION REQUIREMENTS

Series BD, BF

thanks to low heat dissipation and an optimized heating system.



EASY, INTUITIVE HANDLING

Series BD, BF

The state-of-the-art controller is equipped with an easy-to-read alphanumeric display with various functions facilitating dialog with the unit and the readability of data.



COMPLETELY HOMOGENEOUS TEMPERATURE DISTRIBUTION

Series BF

This feature provides excellent spatial and temporal temperature accuracy with the all-new generation of APT.line™ technology.

Series BD Avantgarde.Line | with natural convection

The BD Avantgarde. Line series is specially designed for gentle incubation of organisms, as well as conditioning of heat-sensitive media. The new design of the units and the homogeneous temperature distribution ensure the very best results.





BD 56 model

MAIN FEATURES

- Temperature range: ambient temperature plus 5 °C to 100 °C
- High temperature accuracy thanks to APT.line™ technology
- Natural 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
- Class 3.1 integrated independent temperature safety device (DIN 12880) with visual alarm
- Ergonomic handle design

Interior volume [L]	Online data sheets
57	> go2binder.com/en-BD56
112	po2binder.com/en-BD115
253	po2binder.com/en-BD260
737	po2binder.com/en-BD720
	volume [L] 57 112 253





Description	BD 56	BD 115	BD 260	BD 720
Outer dimensions				
Width net [mm]	560	710	810	1165
Height net [mm]	625	735	965	1590
Depth net [mm]	565	605	760	870
Internal Dimensions				
Width [mm]	360	510	610	960
Height [mm]	420	530	760	1280
Depth [mm]	380	420	545	600
Measures				
Interior volume [L]	57	112	253	737
Net weight of the unit (empty) [kg]	39	54	85	169
permitted load [kg]	70	150	270	315
Load per rack [kg]	30	30	40	45
Performance Data Temperature				
Temperature range 5 °C above ambient temperature to [°C]	100	100	100	100
Temperature variation at 37 °C [± K]	0.3	0.3	0.3	0.7
Temperature fluctuation at 37 °C [± K]	0.1	0.1	0.2	0.1
Heating-up time to 37 °C [min]	42	55	60	70
Recovery time after 30 seconds door open at 37 °C [min]	15	15	16	23
Electrical data				
Nominal power (version 120 V) [kW]	0.3	0.35	0.95	-
Nominal power (version 230 V) [kW]	0.3	0.35	0.85	1.65
Nominal power (version 240 V) [kW]	-	_	-	1.75
Fixtures				
Number of shelves (std./max.)	2/4	2/5	2/8	2/16

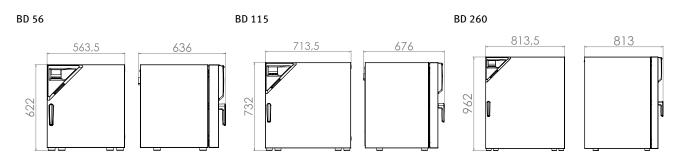
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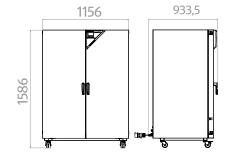
Voltage	Option model	BD 56	BD 115	BD 260	BD 720
240 V 1 50/60 Hz	Standard	-	-	-	9010-0332
230 V 1 50/60 Hz	Standard	9010-0323	9010-0325	9010-0329	9010-0331
120 V 1 50/60 Hz	Standard	9010-0324	9010-0326	9010-0330	_

 $[\]blacktriangleright$ You will find a selction of options, accessories and services suitable for each product on page 12

DIMENSIONS incl. fittings and connections [mm]







Series BF Avantgarde.Line | 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.





BF 115 model

MAIN FEATURES

- Temperature range (model 56 | 260): ambient temperature plus 7 °C to 100 °C
- Temperature range (model 115): ambient temperature plus 8 °C 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
- Class 3.1 integrated independent temperature safety device (DIN 12880) with visual alarm

Model	Interior volume [L]	Online data sheets
BF 56	59	> go2binder.com/en-BF56
BF 115	114	po2binder.com/en-BF115
BF 260	257	po2binder.com/en-BF260
BF 720	734	po2binder.com/en-BF720





Description	BF 56	BF 115	BF 260	BF 720
Outer dimensions				
Width net [mm]	560	710	810	1165
Height net [mm]	625	735	965	1590
Depth net [mm]	565	605	760	870
Internal Dimensions				
Width [mm]	400	550	650	1000
Height [mm]	440	550	780	1300
Depth [mm]	340	380	510	565
Measures				
Interior volume [L]	59	114	257	734
Net weight of the unit (empty) [kg]	39	54	85	166
permitted load [kg]	70	150	270	315
Load per rack [kg]	30	30	40	45
Performance Data Temperature				
Temperature range 7-8 °C above ambient temperature to [°C]	100	100	100	_
Temperature range 10 °C above ambient temperature to [°C]	-	_	_	100
Temperature variation at 37 °C [± K]	0.2	0.3	_	0.3
Temperature fluctuation at 37 °C [± K]	0.1	0.1	0.1	0.1
Heating-up time to 37 °C [min]	6	8	7	15
Recovery time after 30 seconds door open at 37 °C [min]	3	3	3	4
Electrical data				
Nominal power (version 120 V) [kW]	0.4	0.4	1	-
Nominal power (version 230 V) [kW]	0.4	0.4	0.9	1.75
Nominal power (version 240 V) [kW]	-	-	-	1.85
Fixtures				
Number of shelves (std./max.)	2/4	2/5	2/8	2/16

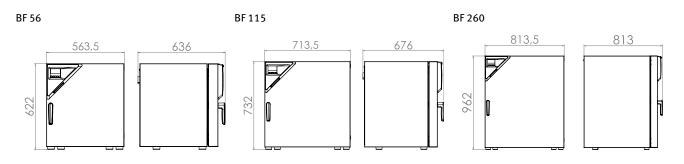
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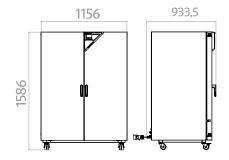
Voltage	Option model	BF 56	BF 115	BF 260	BF 720
240 V 1 60 Hz	Standard	-	-	-	9010-0322
230 V 1 50/60 Hz	Standard	9010-0313	9010-0315	9010-0319	9010-0321
120 V 1 60 Hz	Standard	9010-0314	9010-0316	9010-0320	_

[▶] You will find a selction of options, accessories and services suitable for each product on page 12

DIMENSIONS incl. fittings and connections [mm]



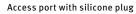
BF 720



EXCERPT FROM OPTIONS AND ACCESSORIES

For introducing external measuring instruments. Large selection of different diameters and positions (left, right, or top) Series BD, BF
Waterproof, switched flush-mounting box (CA3GD) for nominal voltage in unit interior, with cover and corresponding plug (nominal voltage; max. 500 W; max. 90 °C; protection class IP67) Series BD, BF
Lockable door handle prevents unauthorized access. Series BD, BF
Perforated shelves or shelf racks, chrome-plated or made from stainless steel. Series BD, BF
Independent temperature data logging. The tailored product solution contains helpful accessories: From the magnetic mounting of the data logger to the BINDER unit and securing sensor cable for accurate readings. Series BD, BF
You can access our installation, maintenance, calibration, validation, or warranty services by taking out a Maintenance Service Agreement or by simply getting in touch when you need us. More information is available in the accessories and services chapter. Series BD, BF
Using a BINDER series production product as a basis, we develop individual solutions as a single unit or in small batches. All products are tested, certified, and supplied with a full functional guarantee and warranty. More information is available in the accessories and services chapter. Series BD, BF







Shaker operation in the chamber



Shelf



Data Logger for temperature

Incubators Classic.Line

Series B Classic.Line	Page 18
Series BD Classic.Line	Page 20
Series BF Classic.Line	Page 22
Options and Accessories	Page 24

An incubator from BINDER is the perfect solution for stable incubation processes. With their excellent technical profiles, a BINDER incubator produces reliable incubation of microbiological cultures and guarantee reproducible results in every routine test in the laboratory – even under high batch throughputs in long-term operation.

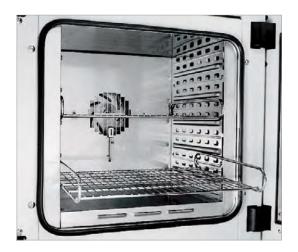
A BD Series incubator functions with natural convection; in a BF Series incubator, convection ensures rapid temperature equalization after the door is opened and quick recovery times.

PRODUCT SELECTION INCUBATORS CLASSIC.LINE

Features	Series B Classic.Line > Page 18	Series BD Classic.Line > Page 20	Series BF Classic.Line Page 22
Model			
Model 23	-	•	-
Model 28	•	-	-
Model 400	-	•	•
General data			
Temperature range [°C]	3070	-	-
Temperature range 5 °C above ambient temperature to [°C]	-	100	100
RS 422 interface	-	•	•
Natural convection	•	•	-
Forced convection	-	-	•
Controller and timer functions			
Controller display	Analog	LED	LED
Ramp function	-	•	•
Time delayed OFF	-	•	•
Time delayed ON	-	-	•
Temperature dependent delayed OFF	-	-	•
Adjustable fan speed	-	-	•
Class 3.1 independent temperature safety device	-	•	•
emperature alarm, visual	-	•	•

[•]Standard equipment

ADVANTAGES AT A GLANCE



CONVENIENT WORK ENVIRONMENT

Series B, BD, BF

BINDER interior concept: highlights rack with tilt protection, no permanent fixtures and stainless-steel inner chamber.



RELIABLE DECONTAMINATION

Series BD, BF

Decontamination is provided by our disinfection routine at 100° C.



HOMOGENEOUS TEMPERATURE CONDITIONS WITH NATURAL CONVECTION

Series BD

Gentle temperature distribution provided by the APT. line $^{\text{TM}}$ preheating chamber technology.



HOMOGENEOUS TEMPERATURE CONDITIONS WITH FORCED CONVECTION

Series BF

Long-term operational stability even under full load from the APT.line TM preheating chamber technology.

Series B Classic.Line | with mechanical adjustment

With the B series incubator, you get a reliable and powerful unit in a solid configuration at a very attractive price.





B 28 model

MAIN FEATURES

- Temperature range: 30 °C to 70 °C
- Hydro-mechanical thermostat

- Inner door made of tempered safety glass
- 2 chrome-plated racks

Model	Interior volume [L]	Online data sheets
B 28	28	ogo2binder.com/en-B28



Description	B 28
Outer dimensions	
Width net [mm]	580
Height net [mm]	405
Depth net [mm]	425
Internal Dimensions	
Width [mm]	400
Height [mm]	280
Depth [mm]	250
Measures	
Interior volume [L]	28
Net weight of the unit (empty) [kg]	23
permitted load [kg]	25
Load per rack [kg]	10
Performance Data Temperature	
Temperature range [°C]	3070
Temperature variation at 37 °C [± K]	1.5
Temperature fluctuation at 37 °C [± K]	1
Heating-up time to 37 °C [min]	95
Electrical data	
Nominal power (version 120 V) [kW]	0.25
Nominal power (version 230 V) [kW]	0.25
Fixtures	
Number of shelves (std./max.)	2/4

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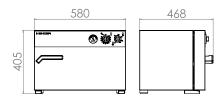
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Option model	B 28
Standard	9010-0002
with TB class 1	9010-0004
Standard	9010-0067
	Standard with TB class 1

[▶] You will find a selction of options, accessories and services suitable for each product on page 24

DIMENSIONS incl. fittings and connections [mm]

B 28



Series BD Classic.Line | with natural convection

The BINDER incubator of the BD series with natural convection is the specialist in long-term and stable continuous operation. This incubator is specially designed for gentle incubation of organisms, as well as conditioning of heat-sensitive media or microbiological heating.





BD 400 model

MAIN FEATURES

- Temperature range: room temperature plus 5 °C to 100 °C
- APT.line™ preheating chamber technology
- natural convection
- · Adjustable exhaust air flap
- Controller with timer functions
- Inner door made of tempered safety glass

- 2 chrome-plated racks
- Units up to 115 liters are stackable
- Class 3.1 independent temperature safety device (DIN 12880) with visual temperature alarm
- Computer interface: RS 422

Model	Interior volume [L]	Online data sheets
BD 23	20	po2binder.com/en-BD23
BD 400	400	po2binder.com/en-BD400

Description	BD 23	BD 400
Outer dimensions		
Width net [mm]	435	1235
Height net [mm]	495	1025
Depth net [mm]	520	765
Internal Dimensions		
Width [mm]	222	1000
Height [mm]	330	800
Depth [mm]	277	500
Measures		
Interior volume [L]	20	400
Net weight of the unit (empty) [kg]	27	135
permitted load [kg]	25	90
Load per rack [kg]	12	35
Performance Data Temperature		
Temperature range 5 °C above ambient temperature to [°C]	100	100
Temperature variation at 37 °C [± K]	0.5	0.5
Temperature fluctuation at 37 °C [± K]	0.2	0.1
Heating-up time to 37 °C [min]	59	120
Recovery time after 30 seconds door open at 37 °C [min]	20	10
Electrical data		
Nominal power (version 120 V) [kW]	0.2	0.85
Nominal power (version 230 V) [kW]	0.2	0.85
Fixtures		
Number of shelves (std./max.)	2/4	2/9

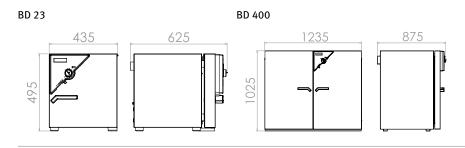
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Voltage	Option model	BD 23	BD 400
230 V 1 50/60 Hz	Standard	9010-0187	9010-0073
120 V 1 60 Hz	Standard	9010-0189	9010-0176

[▶] You will find a selction of options, accessories and services suitable for each product on page 24

DIMENSIONS incl. fittings and connections [mm]



Series BF Classic.Line | 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.





BF 400 model

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
- Units up to 115 liters are stackable
- Class 3.1 independent temperature safety device (DIN 12880) with visual temperature alarm
- Computer interface: RS 422

Model	Interior volume [L]	Online data sheets	
BF 400	400	go2binder.com/en-BF400	

Description	BF 400
Outer dimensions	
Width net [mm]	1235
Height net [mm]	1025
Depth net [mm]	765
Internal Dimensions	
Width [mm]	1000
Height [mm]	800
Depth [mm]	500
Measures	
Interior volume [L]	400
Net weight of the unit (empty) [kg]	145
permitted load [kg]	90
Load per rack [kg]	35
Performance Data Temperature	
Temperature range 5 °C above ambient temperature to [°C]	100
Temperature variation at 37 °C [± K]	0.4
Temperature fluctuation at 37 °C [± K]	0.1
Heating-up time to 37 °C [min]	12
Recovery time after 30 seconds door open at 37 °C [min]	5
Electrical data	
Nominal power (version 120 V) [kW]	0.85
Nominal power (version 230 V) [kW]	0.85
Fixtures	
Number of shelves (std./max.)	2/9

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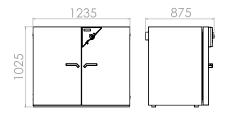
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Voltage	Option model	BF 400
230 V 1 50/60 Hz	Standard	9010-0241
120 V 1 60 Hz	Standard	9010-0242

[▶] You will find a selction of options, accessories and services suitable for each product on page 24

DIMENSIONS incl. fittings and connections [mm]

BF 400



EXCERPT FROM OPTIONS AND ACCESSORIES

Access port with silicone plug	For introducing external measuring instruments. Large selection of different diameters and positions (left, right, or top) Series B, BD
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 °C; protection class IP67) Series B, BD
Door lock	Lockable door handle prevents unauthorized access. Series B, BD
Shelf racks	Perforated shelves or shelf racks, chrome-plated or made from stainless steel. Series B, BD, BF
Data Logger Kit T	Independent temperature data logging. The tailored product solution contains helpful accessories: From the magnetic mounting of the data logger to the BINDER unit and securing sensor cable for accurate readings. Series B, BD
Services	You can access our installation, maintenance, calibration, validation, or warranty services by taking out a Maintenance Service Agreement or by simply getting in touch when you need us. More information is available in the accessories and services chapter. Series B, BD, BF
BINDER INDIVIDUAL	Using a BINDER series production product as a basis, we develop individual solutions as a single unit or in small batches. All products are tested, certified, and supplied with a full functional guarantee and warranty. More information is available in the accessories and services chapter. Series B, BD, BF

[▶] All extras online go2binder.com/en-options



Access port with silicone plug



Shaker operation in the chamber



Shelf



Data Logger for temperature

Incubators Solid.Line

BD-S Solid.Line series Page 30

Options and Accessories Page 32

With its new Solid. Line range, BINDER is expanding its product portfolio. This new line embodies solid product design with great value for money. This is the ideal addition to BINDER's popular premium products, thus complementing the entire product range with BINDER's quality guarantee – Made in Germany.

PRODUCT SELECTION INCUBATORS SOLID.LINE

Features	BD-S Solid.Line series Page 30	
Model		
Model 56	•	
Model 115	•	
General data		
Temperature range 5 °C above ambient temperature to [°C]	70	
Natural convection	•	
Controller and timer functions		
Controller display	LED	
Ramp function	•	
Time delayed OFF	•	
Class 3.1 independent temperature safety device	•	
Temperature alarm, visual	•	

[•]Standard equipment

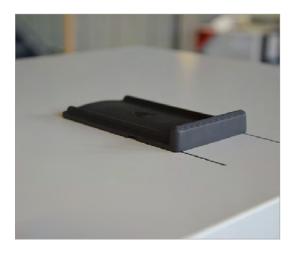
ADVANTAGES AT A GLANCE



EASY OPERATION OF THE UNIT

Series BD-S

Using controller with digital display in °C and °F.



ADJUSTABLE EXHAUST AIR FLAP ABOVE THE UNIT

Series BD-S

For setting the air change rates.

BD-S Solid.Line series | with natural convection

The new products in the Solid.Line impress with their tried-and-tested BINDER quality and reliability. They are suited to incubation. The attributes of the Solid.Line are geared towards the application in question and therefore used in research and quality assurance.



BD-S 56 model

MAIN FEATURES

- Temperature range: ambient temperature +5 °C to 70 °C
- APT.line™ preheating chamber technology
- Natural convection
- Adjustable exhaust air flap
- Controller with timer function

- Inner door made of tempered safety glass
- 1 chrome-plated rack
- Class 3.1 integrated independent temperature safety device (DIN 12880) with visual alarm

Model	Interior volume [L]	Online data sheets
BD-S 56	62	po2binder.com/en-BD-S56
BD-S 115	118	po2binder.com/en-BD-S115

Description	BD-S 56	BD-S 115
Outer dimensions		
Width net [mm]	595	745
Height net [mm]	625	735
Depth net [mm]	525	565
Internal Dimensions		
Width [mm]	400	550
Height [mm]	440	550
Depth [mm]	350	390
Measures		
Interior volume [L]	62	118
Net weight of the unit (empty) [kg]	38	54
permitted load [kg]	30	75
Load per rack [kg]	15	20
Performance Data Temperature		
Temperature range 5 °C above ambient temperature to [°C]	70	70
Temperature variation at 37 °C [± K]	0.7	0.5
Temperature fluctuation at 37 °C [± K]	0.1	0.2
Recovery time after 30 seconds door open at 37 °C [min]	15	15
Electrical data		
Nominal power (version 120V) [kW]	0.3	0.35
Nominal power (version 230V) [kW]	0.3	0.35
Environment-specific data		
Energy consumption at 37 °C [Wh/h]	25	25
Fixtures		
Number of shelves (std./max.)	1/3	1/5

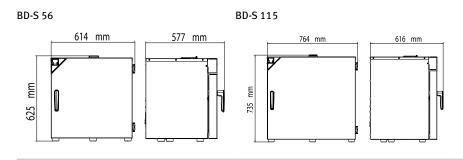
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Voltage	Option model	BD-S 56	BD-S 115
230 V 1 50/60 Hz	Standard	9090-0016	9090-0022
120 V 1 60 Hz	Standard	9090-0017	9090-0023

^{ightharpoonup} You will find a selction of options, accessories and services suitable for each product on page 32

DIMENSIONS incl. fittings and connections [mm]



BINDER products

CO ₂ incubators
Incubators
Cooling incubators
Growth chambers
Ultralow temperature freezers
Drying and heating chambers
Safety drying chambers
Vacuum drying chambers
Constant climate chambers
Dynamic climate chambers



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