

Series FD | with forced convection

A BINDER FD series Avantgarde.Line heating oven is always used when fast drying and sterilization is required. Thanks to its fully homogeneous temperature distribution, quick dynamics and powerful fan, this heating oven saves valuable time.



FD 56 model



MAIN FEATURES

- Temperature range: ambient temperature plus 10 °C to 300 °C
- High temperature accuracy thanks to APT.line™ technology
- Forced convection
- Controller with LCD display
- Electromechanical control of the exhaust air flap
- 2 chrome-plated racks
- Units up to 115 L are stackable
- Class 2 independent temperature safety device (DIN 12880) with visual temperature alarm
- Ergonomic handle design
- USB port for recording data

AVAILABLE SIZES

Model	Interior volume [L]	Online data sheets
FD 56	60	› go2binder.com/en-FD56
FD 115	116	› go2binder.com/en-FD115
FD 260	259	› go2binder.com/en-FD260

› Other Classic.Line models › page 107



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Find all details online
go2binder.com/en-FD-a

TECHNICAL DATA

Description	FD 56	FD 115	FD 260
Measures - Outer dimensions			
Width net [mm]	560	710	810
Height net [mm]	625	735	965
Depth net [mm]	565	605	760
Measures - Internal Dimensions			
Width [mm]	400	550	650
Height [mm]	440	550	780
Depth [mm]	345	385	515
Measures			
Interior volume [L]	60	116	259
Net weight of the unit (empty) [kg]	39	54	85
permitted load [kg]	70	150	270
Load per rack [kg]	30	30	40
Performance Data Temperature			
Temperature range 10 °C above ambient temperature to [°C]	300	300	300
Temperature variation at 150 °C [± K]	1.7	1.7	1.9
Temperature fluctuation at 150 °C [± K]	0.3	0.3	0.5
Heating-up time to 150 °C [min]	15	19	20
Recovery time after 30 seconds door open at 150 °C [min]	4	5	6
Electrical data			
Nominal power (Version 120 V) [kW]	1.2	1.4	–
Nominal power (Version 230 V) [kW]	1.1	1.3	2.3
Nominal power (Version 240 V) [kW]	–	–	2.5
Fixtures			
Number of shelves (std./max.)	2/4	2/5	2/8

ORDERING INFORMATION [Art. No.]

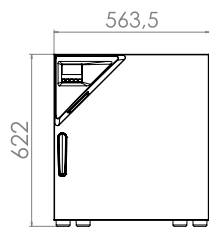
Further details: Go to www.binder-world.com › Search › Enter Article Number

Voltage	Option model	FD 56	FD 115	FD 260
240 V 1~ 60 Hz	Standard	–	–	9010-0310
230 V 1~ 50/60 Hz	Standard	9010-0303	9010-0305	9010-0309
120 V 1~ 60 Hz	Standard	9010-0304	9010-0306	–

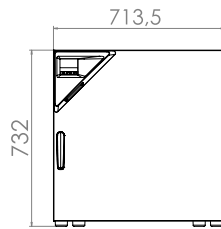
► You will find a selection of options, accessories and services suitable for each product on page 105

DIMENSIONS INCL. FITTINGS AND CONNECTIONS [MM]

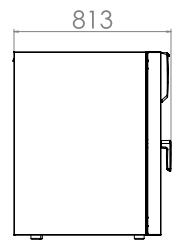
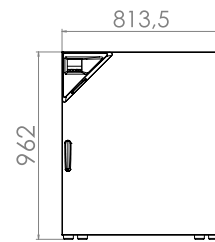
FD 56



FD 115



FD 260



Series FED | with forced convection and enhanced timer functions

BINDER heating chambers of the FED Avantgarde.Line series provide almost unlimited capacity and are particularly adaptable. With advanced timing functions and a controllable fan, temperature and convection conditions are easily controlled.



FED 56 model



MAIN FEATURES

- Temperature range: ambient temperature plus 10 °C to 300 °C
- High temperature accuracy thanks to APT.line™ technology
- Adjustable fan speed
- Controller with LCD display
- Electromechanical control of the exhaust air flap
- 2 chrome-plated racks
- Units up to 115 L are stackable
- Class 2 independent temperature safety device (DIN 12880) with visual temperature alarm
- Ergonomic handle design
- Ethernet interface

AVAILABLE SIZES

Model	Interior volume [L]	Online data sheets
FED 56	60	› go2binder.com/en-FED56
FED 115	116	› go2binder.com/en-FED115
FED 260	259	› go2binder.com/en-FED260

› Other Classic.Line models › page 107



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Find all details online
go2binder.com/en-FED-a

TECHNICAL DATA

Description	FED 56	FED 115	FED 260
Measures - Outer dimensions			
Width net [mm]	560	710	810
Height net [mm]	625	735	965
Depth net [mm]	565	605	760
Measures - Internal Dimensions			
Width [mm]	400	550	650
Height [mm]	440	550	780
Depth [mm]	345	385	515
Measures			
Interior volume [L]	60	116	259
Net weight of the unit (empty) [kg]	39	54	85
permitted load [kg]	70	150	270
Load per rack [kg]	30	30	40
Performance Data Temperature			
Temperature range 10 °C above ambient temperature to [°C]	300	300	300
Temperature variation at 150 °C [± K]	1.4	1.2	1.6
Temperature fluctuation at 150 °C [± K]	0.3	0.3	0.5
Heating-up time to 150 °C [min]	15	19	20
Recovery time after 30 seconds door open at 150 °C [min]	4	5	6
Electrical data			
Nominal power (Version 120 V) [kW]	1.2	1.4	–
Nominal power (Version 230 V) [kW]	1.1	1.3	2.3
Nominal power (Version 240 V) [kW]	–	–	2.5
Fixtures			
Number of shelves (std./max.)	2/4	2/5	2/8

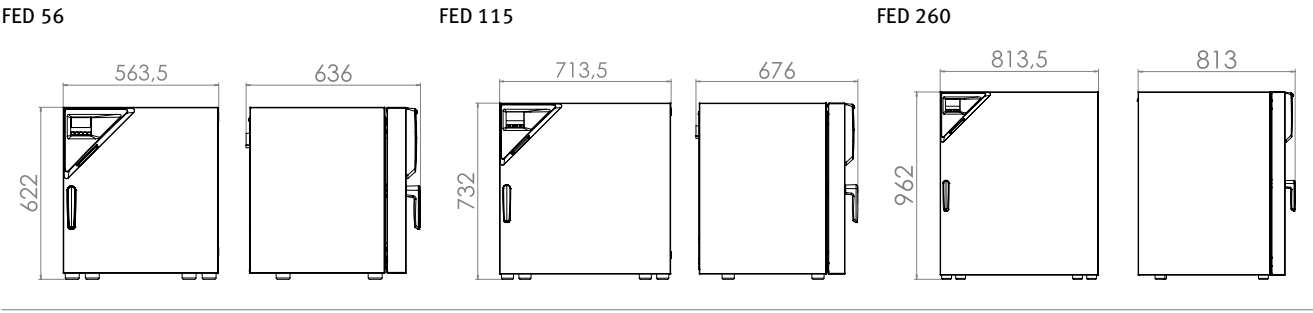
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Voltage	Option model	FED 56	FED 115	FED 260
240 V 1~ 60 Hz	Standard	–	–	9010-0300
230 V 1~ 50/60 Hz	Standard	9010-0295	9010-0293	9010-0299
120 V 1~ 60 Hz	Standard	9010-0296	9010-0294	–

► You will find a selection of options, accessories and services suitable for each product on page 105

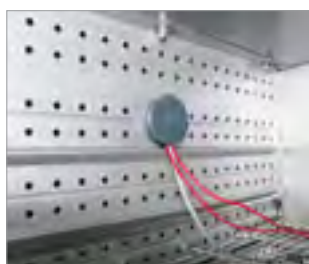
DIMENSIONS INCL. FITTINGS AND CONNECTIONS [MM]



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 ED, FD, FED
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 ED, FD, FED
Viewing window and interior lighting	Viewing window in the door with a triple-glazed insulating glass and interior lighting for easy visibility of the samples. Series ED, FD, FED
Shelf racks	Perforated shelves or shelf racks, chrome-plated or made from stainless steel. Series ED, FD, FED
HEPA air filter	Particle filter on fresh air supply for unit; filter classification H14 (acc. to. EN 1822-1:2009, > 99.995% at 0.3 µm). Series ED, FD, FED
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 ED, FD, FED
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 ED, FD, FED

► All extras online go2binder.com/en-options



Access port with silicone plug



Data Logger for temperature



Viewing window in the door



Shelf

Series FD | with forced convection

A BINDER FD series heating oven is always used when fast drying and sterilization is required. Thanks to its fully homogeneous temperature distribution, quick dynamics and powerful fan, this heating oven saves valuable time.



FD 23 model

MAIN FEATURES

- Temperature range: room temperature plus 5 °C to 300 °C
- APT.line™ preheating chamber technology
- Forced convection
- Adjustable exhaust air flap
- Controller with timer functions
- 2 chrome-plated racks
- Class 2 independent adjustable temperature safety device (DIN 12880) with visual alarm

AVAILABLE SIZES

Model	Interior volume [L]	Online data sheets
FD 23	20	› go2binder.com/en-FD23

› Other Avantgarde.Line models › page 93



Find all details online
go2binder.com/en-FD-c

TECHNICAL DATA

Description	FD 23
Measures - Outer dimensions	
Width net [mm]	435
Height net [mm]	495
Depth net [mm]	520
Measures - Internal Dimensions	
Width [mm]	222
Height [mm]	330
Depth [mm]	300
Measures	
Interior volume [L]	20
Net weight of the unit (empty) [kg]	27
permitted load [kg]	25
Load per rack [kg]	12
Performance Data Temperature	
Temperature range 5 °C above ambient temperature to [°C]	300
Temperature variation at 150 °C [± K]	2.5
Temperature fluctuation at 150 °C [± K]	0.3
Heating-up time to 150 °C [min]	25
Recovery time after 30 seconds door open at 150 °C [min]	6
Electrical data	
Nominal power (Version 120 V) [kW]	0.8
Nominal power (Version 230 V) [kW]	0.8
Fixtures	
Number of shelves (std./max.)	2/4

ORDERING INFORMATION [Art. No.]

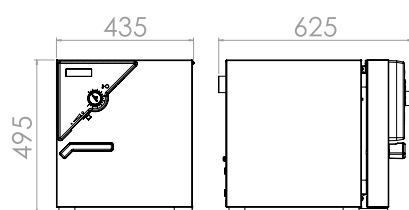
Further details: Go to www.binder-world.com > Search > Enter Article Number

Voltage	Option model	FD 23
230 V 1~ 50/60 Hz	Standard	9010-0194
120 V 1~ 60 Hz	Standard	9010-0196

► You will find a selection of options, accessories and services suitable for each product on page 125

DIMENSIONS INCL. FITTINGS AND CONNECTIONS [MM]

FD 23



Series FED | with forced convection and enhanced timer functions

BINDER heating chambers of the FED series provide almost unlimited capacity and are particularly adaptable. With advanced timing functions and a adjustable fan, temperature and convection conditions are easily controlled.



FED 720 model

MAIN FEATURES

- Temperature range: room temperature plus 5 °C to 300 °C
- APT.line™ preheating chamber technology
- Adjustable fan speed
- Adjustable exhaust air flap
- Controller with expanded timer functions
- 2 chrome-plated racks
- Class 2 independent adjustable temperature safety device (DIN 12880) with visual alarm
- Computer interface: RS 422

AVAILABLE SIZES

Model	Interior volume [L]	Online data sheets
FED 400	400	› go2binder.com/en-FED400
FED 720	720	› go2binder.com/en-FED720

› Other Avantgarde.Line models › page 93



Find all details online
go2binder.com/en-FED-c

TECHNICAL DATA

Description	FED 400	FED 720
Measures - Outer dimensions		
Width net [mm]	1235	1235
Height net [mm]	1025	1530
Depth net [mm]	765	865
Measures - Internal Dimensions		
Width [mm]	1000	1000
Height [mm]	800	1200
Depth [mm]	510	610
Measures		
Interior volume [L]	400	720
Net weight of the unit (empty) [kg]	145	195
permitted load [kg]	90	120
Load per rack [kg]	35	45
Performance Data Temperature		
Temperature range 5 °C above ambient temperature to [°C]	300	300
Temperature variation at 150 °C [± K]	3.8	3
Temperature fluctuation at 150 °C [± K]	0.7	0.3
Heating-up time to 150 °C [min]	29	29
Recovery time after 30 seconds door open at 150 °C [min]	6	8
Electrical data		
Nominal power (Version 208 V) [kW]	3.4	5
Nominal power (Version 400 V) [kW]	3.4	5
Fixtures		
Number of shelves (std./max.)	2/10	2/16

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Further details: Go to www.binder-world.com > Search > Enter Article Number

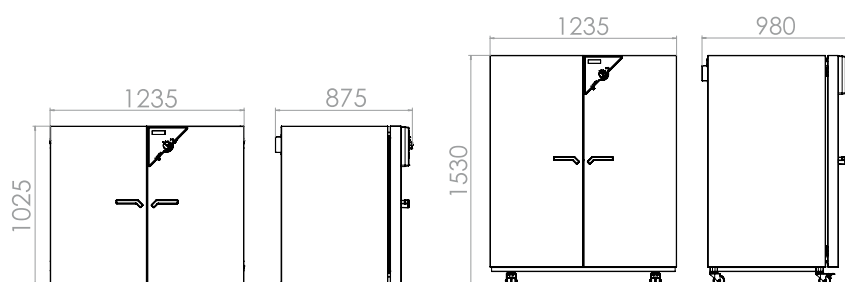
Voltage	Option model	FED 400	FED 720
400 V 3~ 50/60 Hz	Standard	9010-0216	9010-0218
208 V 3~ 60 Hz	Standard	9010-0217	9010-0219

► You will find a selection of options, accessories and services suitable for each product on page 125

DIMENSIONS INCL. FITTINGS AND CONNECTIONS [MM]

FED 400

FED 720



Series FP | with forced convection and program functions

A BINDER material test chamber with mechanical convection of the FP series provides reliably short drying times and particularly fast heating – even for chambers under full loads.



FP 115 model

MAIN FEATURES

- Temperature range: room temperature plus 5 °C to 300 °C
- APT.line™ preheating chamber technology
- Adjustable fan speed
- Adjustable exhaust air flap
- Controller with time-segment and real-time programming
- 2 chrome-plated racks
- Class 2 independent adjustable temperature safety device (DIN 12880) with visual alarm
- Computer interface: RS 422

AVAILABLE SIZES

Model	Interior volume [L]	Online data sheets
FP 53	53	› go2binder.com/en-FP53
FP 115	115	› go2binder.com/en-FP115
FP 240	240	› go2binder.com/en-FP240
FP 400	400	› go2binder.com/en-FP400
FP 720	720	› go2binder.com/en-FP720

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Find all details online
go2binder.com/en-FP-c

TECHNICAL DATA

Description	FP 53	FP 115	FP 240	FP 400	FP 720
Measures - Outer dimensions					
Width net [mm]	635	835	1035	1235	1235
Height net [mm]	620	705	825	1025	1530
Depth net [mm]	575	645	745	765	865
Measures - Internal Dimensions					
Width [mm]	400	600	800	1000	1000
Height [mm]	400	480	600	800	1200
Depth [mm]	340	410	510	510	610
Measures					
Interior volume [L]	53	115	240	400	720
Net weight of the unit (empty) [kg]	44	62	96	145	194
permitted load [kg]	40	50	70	90	120
Load per rack [kg]	15	20	30	35	45
Performance Data Temperature					
Temperature range 5 °C above ambient temperature to [°C]	300	300	300	300	300
Temperature variation at 150 °C [± K]	2	1.8	2	2.5	2
Temperature fluctuation at 150 °C [± K]	0.3	0.3	0.3	0.3	0.3
Heating-up time to 150 °C [min]	24	30	27	35	39
Recovery time after 30 seconds door open at 150 °C [min]	5	8	10	17	20
Electrical data					
Nominal power (Version 120 V) [kW]	1.2	1.6	–	–	–
Nominal power (Version 208 V) [kW]	–	–	2.7	3.4	5
Nominal power (Version 230 V) [kW]	1.2	1.6	2.7	–	–
Nominal power (Version 400 V) [kW]	–	–	–	3.4	5
Fixtures					
Number of shelves (std./max.)	2/5	2/6	2/7	2/10	2/16

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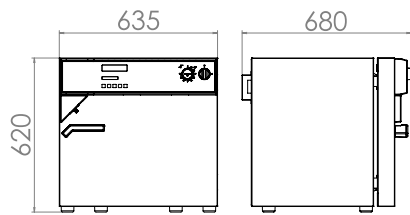
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Voltage	Option model	FP 53	FP 115	FP 240	FP 400	FP 720
400 V 3~ 50/60 Hz	Standard	–	–	–	9010-0265	9010-0267
230 V 1~ 50/60 Hz	Standard	9010-0153	9010-0255	9010-0263	–	–
208 V 1~ 60 Hz	Standard	–	–	9010-0264	9010-0266	9010-0268
120 V 1~ 60 Hz	Standard	9010-0175	9010-0262	–	–	–

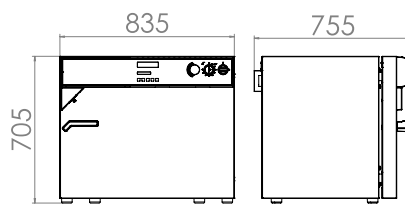
► You will find a selection of options, accessories and services suitable for each product on page 125

DIMENSIONS INCL. FITTINGS AND CONNECTIONS [MM]

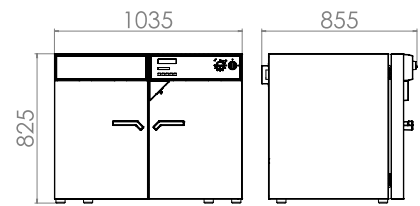
FP 53



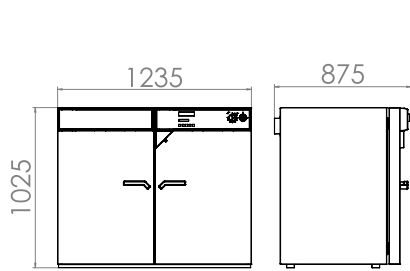
FP 115



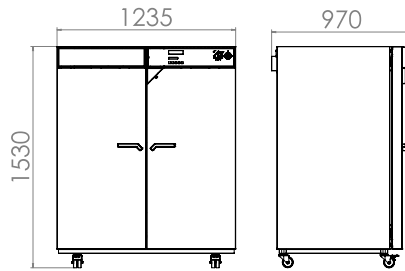
FP 240



FP 400



FP 720



Series M | with forced convection and advanced program functions

With a maximum of 300 °C and various programming options the M series material test chambers are ideal for material and aging tests. With a high air flow, the powerful fans ensure rapid heating.



M 53 model

MAIN FEATURES

- Temperature range: room temperature plus 5 °C to 300 °C
- APT.line™ preheating chamber technology
- Adjustable fan speed
- Program-controlled ventilation flap
- Color LCD controller with time-segment programming
- 2 chrome-plated racks
- Class 2 independent adjustable temperature safety device (DIN 12880) with visual alarm
- Computer interface: RS 422

AVAILABLE SIZES

Model	Interior volume [L]	Online data sheets
M 53	53	› go2binder.com/en-M53
M 115	115	› go2binder.com/en-M115
M 240	240	› go2binder.com/en-M240
M 400	400	› go2binder.com/en-M400
M 720	720	› go2binder.com/en-M720

› Other Avantgarde.Line models › page 93

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Find all details online
go2binder.com/en-M-c

TECHNICAL DATA

Description	M 53	M 115	M 240	M 400	M 720
Measures - Outer dimensions					
Width net [mm]	635	835	1035	1235	1235
Height net [mm]	780	865	985	1190	1690
Depth net [mm]	575	645	745	795	865
Measures - Internal Dimensions					
Width [mm]	400	600	800	1000	1000
Height [mm]	400	480	600	800	1200
Depth [mm]	340	410	510	510	610
Measures					
Interior volume [L]	53	115	240	400	720
Net weight of the unit (empty) [kg]	61	89	131	173	203
permitted load [kg]	40	50	70	90	120
Load per rack [kg]	15	20	30	35	45
Performance Data Temperature					
Temperature range 5 °C above ambient temperature to [°C]	300	300	300	300	300
Temperature variation at 150 °C [± K]	1.3	1.5	1.5	1.5	1.9
Temperature fluctuation at 150 °C [± K]	0.3	0.3	0.3	0.3	0.3
Heating-up time to 150 °C [min]	15	16	19	18	21
Recovery time after 30 seconds door open at 150 °C [min]	3	3	3	3	3
Electrical data					
Nominal power (Version 230 V) [kW]	1.2	1.6	2.7	–	–
Nominal power (Version 400 V) [kW]	–	–	–	3.4	5
Fixtures					
Number of shelves (std./max.)	2/5	2/6	2/7	2/10	2/16

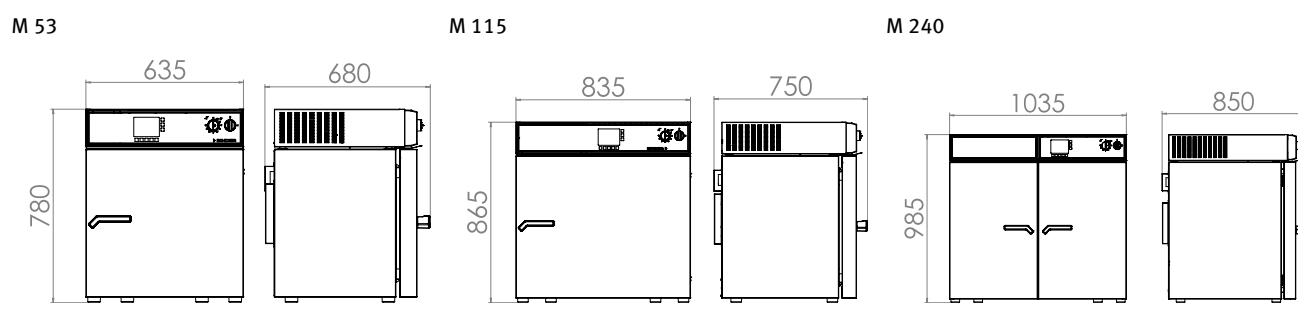
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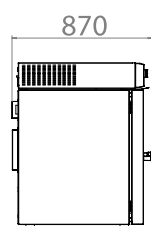
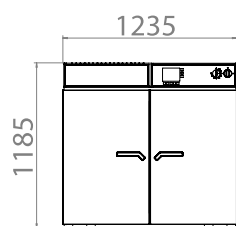
Voltage	Option model	M 53	M 115	M 240	M 400	M 720
400 V 3~ 50/60 Hz	Standard	–	–	–	9010-0204	9010-0205
230 V 1~ 50/60 Hz	Standard	9010-0201	9010-0202	9010-0203	–	–

► You will find a selection of options, accessories and services suitable for each product on page 125

DIMENSIONS INCL. FITTINGS AND CONNECTIONS [MM]



M 400



M 720

