

Series FED Avantgarde.Line | 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.

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FED 56 model

BENEFITS

- Best energy efficiency on the market
- Excellent temporal and spatial temperature accuracy
- USB connection for recording data
- Temperature range up to 300 °C

MAIN FEATURES

- Temperature range: +10 °C above ambient temperature to +300 °C
- Up to 30% lower energy consumption compared to conventional units on the market
- High temperature accuracy thanks to APT.line™ technology
- Adjustable fan speed
- Controller with LCD display and enhanced time functions
- Electromechanical control of the exhaust air flap
- 2 chrome-plated racks
- Units up to 115 liters are stackable
- Class 2 integrated independent adjustable temperature safety device (DIN 12880) with visual alarm
- Ergonomic handle design



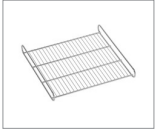



AVAILABLE SIZES

Model	Interior volume [L]	Online data sheets
FED 56	60	› go2binder.com/en-FED56-AL
FED 115	116	› go2binder.com/en-FED115-AL
FED 260	259	› go2binder.com/en-FED260-AL
FED 720	741	› go2binder.com/en-FED720-AL



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

OPTIONAL EQUIPMENT

Access port with silicone plug	For introducing external measuring instruments. Large selection of different diameters and positions (left, right, or top)	
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.	
Shelf racks	Perforated shelves or shelf racks, chrome-plated or made from stainless steel.	
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).	
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.	
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.	

► All extras online go2binder.com/en-options

TECHNICAL DATA

Description	FED 56	FED 115	FED 260	FED 720
Measures				
Interior volume [L]	60	116	259	741
Net weight of the unit (empty) [kg]	41	57	85	166
Permitted load [kg]	70	150	270	315
Load per rack [kg]	30	30	40	45
Wall clearance back [mm]	160	160	160	160
Wall clearance sidewise [mm]	100	100	100	100
Internal Dimensions				
Width [mm]	400	550	650	1000
Height [mm]	440	550	780	1300
Depth [mm]	345	385	515	570
Housing dimensions not incl. fittings and connections				
Width net [mm]	560	710	810	1165
Height net [mm]	625	705	940	1590
Depth net [mm]	565	605	760	870
Performance Data Temperature				
Temperature range +10 °C above ambient temperature to [°C]	300	300	300	–
Temperature range +12 °C above ambient temperature to [°C]	–	–	–	300
Temperature variation at 150 °C [± K]	1.4	1.2	1.6	2.0
Temperature fluctuation at 150 °C [± K]	0.3	0.3	0.4	0.6
Heating-up time to 150 °C [min]	15	18	19	25
Recovery time after 30 seconds door open at 150 °C [min]	4	4	5	6
Electrical data				
Nominal power (version 120 V) [kW]	1.2	1.4	–	–
Nominal power (version 208 V) [kW]	–	–	–	4.5
Nominal power (version 230 V) [kW]	1.1	1.3	2.3	–
Nominal power (version 240 V) [kW]	–	–	2.5	–
Nominal power (version 400 V) [kW]	–	–	–	4.5
Fixtures				
Number of shelves (std./max.)	2/4	2/5	2/8	2/16

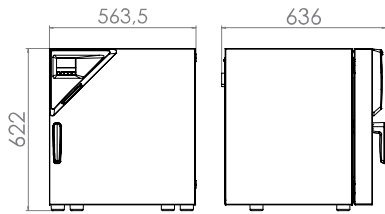
ORDERING INFORMATION [Art. No.]

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

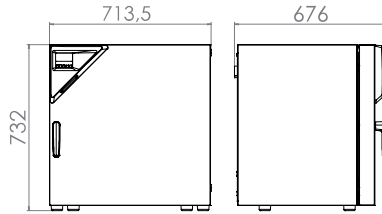
Voltage	Option model	FED 56	FED 115	FED 260	FED 720
400 V 3~ 50/60 Hz	Standard	–	–	–	9010-0301
240 V 1~ 60 Hz	Standard	–	–	9010-0300	–
230 V 1~ 50/60 Hz	Standard	9010-0295	9010-0293	9010-0299	–
208 V 3~ 60 Hz	Standard	–	–	–	9010-0302
120 V 1~ 60 Hz	Standard	9010-0296	9010-0294	–	–

DIMENSIONS incl. fittings and connections [mm]

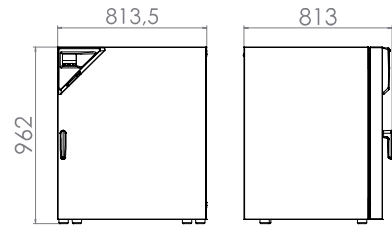
FED 56



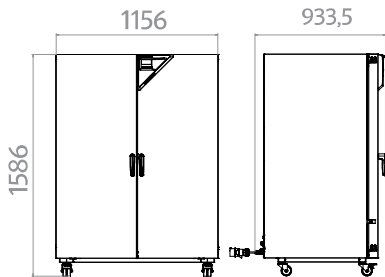
FED 115



FED 260



FED 720



ORDERING INFORMATION OPTIONS

Designation	Description	FED 56	FED 115	FED 260	FED 720	Art. No.
Access port with silicone plug	left					
	10 mm	•	•	•	•	8012-1278
	30 mm	•	•	•	•	8012-1655
	50 mm	•	•	•	•	8012-1657
	100 mm	–	•	•	•	8012-1669
	right					
	10 mm	•	•	•	•	8012-1271
	30 mm	•	•	•	•	8012-1654
	50 mm	•	•	•	•	8012-1656
	100 mm	–	•	•	•	8012-1670
	top					
	10 mm	•	•	•	•	8012-1264
	30 mm	•	•	•	•	8012-1365
	50 mm	•	•	•	•	8012-1381
	100 mm	•	•	•	•	8012-1672
	Alarm function for overheating	Switchable acoustic alarm, with adjustable limit value on the independent temperature safety device	•	•	•	•
Analog output 4-20 mA	for temperature values (output not adjustable)	•	•	•	•	8012-1625
Calibration certificate, expanded	for temperature; for extending the measurement in center of chamber to include another test temperature	•	•	•	•	8012-1118

Designation	Description	FED 56	FED 115	FED 260	FED 720	Art. No.
Calibration certificate, temperature	for temperature, measurement in center of chamber at specified temperature	•	•	•	•	8012-1137
	temperature measurement incl. certificate and 27 measuring points at specified temperature	•	•	•	•	8012-1596
	temperature measurement incl. certificate, 15- 18 measuring points at specified temperature	•	•	•	•	8012-1575
	temperature measurement incl. certificate, 9 measuring points at specified temperature	•	•	•	•	8012-1554
Class 3.1 independent temperature safety device	with visual alarm (DIN 12880)	•	•	•	•	8012-1644
Clock	battery-backed	•	•	•	•	8012-1642
Door gasket	made of FKM, silicone-free	•	–	–	–	8012-1649
		–	•	–	–	8012-1651
		–	–	•	–	8012-1653
		–	–	–	•	8012-1834
Door lock	lockable door handle	•	•	•	–	8012-1666
		–	–	–	•	8012-1819
Fan, reinforced	for increased air change rates, incl. uprated heat output for faster heating up time and improved recovery time; max. 300 °C; not in conjunction with load management option	•	–	–	–	8012-1684
	400 V option model	–	–	–	•	8012-1781
Gas-tight option model	Incl. additional measures for the greatest possible impermeability to gas; not in conjunction with access port or interior lighting option	•	–	–	–	8012-1684
		–	•	–	–	8012-1686
		–	–	•	–	8012-1688
Heating output, reinforced	for faster heating up time and improved recovery time; max. 300 °C	•	–	–	–	8012-1698
	120/230 V option model	–	•	–	–	8012-1699
	•	–	–	–	8012-1695	
HEPA air filter	On fresh air supply for unit; filter classification H14 (acc. to. EN 1822-1:2009, > 99.995% at 0.3 µm); not in conjunction with reinforced heating output, reinforced fan	–	•	–	–	8012-1696
		–	–	•	–	8012-1697
		–	–	–	•	8012-1835
		•	–	–	–	8012-1690
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	–	•	–	–	8012-1692
		–	–	•	–	8012-1694
		–	•	–	–	8012-1714
Inner chamber, reinforced	max. total load 170 kg	–	•	–	–	8012-1714
	max. total load 300 kg	–	–	•	–	8012-1715
	max. total load 350 kg	–	–	–	•	8012-1822
	max. total load 85 kg	•	–	–	–	8012-1713
Interior lighting	with 15 W light bulb	•	•	–	–	8012-1633
	120 V option model	•	•	•	–	8012-1629
	230/240 V option model	–	–	–	•	8012-0972
	with two 15 W light bulbs	–	–	–	•	8012-1826
	208 V option model	–	–	–	•	8012-1826
Measurement of air exchange rate	in accordance with ASTM D5374, definition and protocol according to ambient temperature	•	•	•	•	8012-1197
Pt 100 temperature sensor	additional flexible Pt 100, interior, for displaying the temperature on the unit display	•	•	•	•	8012-1621

Designation	Description	FED 56	FED 115	FED 260	FED 720	Art. No.
Viewing window and interior lighting	viewing window (triple insulating glass) in door, 240 x 240 mm, and 15 W interior					
	120 V option model	•	–	–	–	8012-1703
	230 V option model	•	–	–	–	8012-1701
	viewing window (triple insulating glass) in door, 300 x 480 mm, and 30 W interior					
	208/400 V option model	–	–	–	•	8012-1832
	viewing window (triple insulating glass) in door, 370 x 370 mm, and 15 W interior					
	120 V option model	–	•	–	–	8012-1707
	230 V option model	–	•	–	–	8012-1705
	240 V option model	–	–	•	–	8012-1709
	240 V option model	–	–	•	–	8012-1711

ORDERING INFORMATION ACCESSORIES

Designation	Description	FED 56	FED 115	FED 260	FED 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
Qualification documents	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 ₂ , O ₂ , pressure, depending on unit					
	Digital in PDF format	•	•	•	•	7057-0001
	Hard copy inside folder	•	•	•	•	7007-0001
	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 ₂ , O ₂ – or pressure, depending on unit					
	Digital in PDF format	•	•	•	•	7057-0005
	Hard copy inside folder	•	•	•	•	7007-0005
Rack		•	–	–	–	8012-2038
		–	•	–	–	8012-2040
		–	–	•	–	8012-2042
		–	–	–	•	8012-2044
		•	–	–	–	8012-2085
		–	•	–	–	8012-2168
	stainless steel	–	–	•	–	8012-2169
		–	–	–	•	8012-2170
		–	–	•	–	8012-2184
		–	–	–	•	8012-2185
Rubber pads	set anti-slip feet	•	•	•	–	8012-2030

Designation	Description	FED 56	FED 115	FED 260	FED 720	Art. No.
Shelf, perforated	Stainless steel	•	–	–	–	8012-2175
		–	•	–	–	8012-2176
		–	–	•	–	8012-2177
		–	–	–	•	8012-2178
Table on castors	stable cart, casters with locking brakes, dimensions: W 1,000 x D 800 x H 780 mm	•	•	–	–	9051-0018
	stable cart, casters with locking brakes, dimensions: W 1,300 x D 800 x H 780 mm	–	–	•	–	9051-0019