

Series M Avantgarde.Line | 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 56 model

BENEFITS

- Uniform drying conditions thanks to APT.line™ technology
- Identical test conditions throughout the chamber interior independent of sample size and quantity
- Outstanding thermal insulation saves operation costs
- Advanced programming options

MAIN FEATURES

- Temperature range: +14...23°C above ambient temperature to +300°C
- Reinforced fan with adjustable speed
- Electromechanical control of the exhaust air flap
- Intuitive touchscreen controller with time-segment and real-time programming
- Class 2 independent adjustable temperature safety device (DIN 12880) and class 3.1 independent temperature safety device (DIN 12880) with visual/acoustic alarm available for selection on the controller
- Failsafe function
- Computer interface: Ethernet


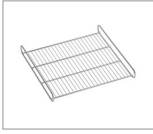


AVAILABLE SIZES

Model	Interior volume [L]	Online data sheets
M 56	56	› go2binder.com/en-M56-AL
M 115	115	› go2binder.com/en-M115-AL
M 260	260	› go2binder.com/en-M260-AL
M 720	720	› go2binder.com/en-M720-AL



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

OPTIONAL EQUIPMENT

Access port with silicone plug	For introducing external measuring instruments. Large selection of different diameters and positions (left, right, or top)	
Shelf racks	Perforated shelves or shelf racks, chrome-plated or made from stainless steel.	
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	M 56	M 115	M 260	M 720
Measures				
Interior volume [L]	59	113	256	735
Net weight of the unit (empty) [kg]	43	56	85	169
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]	335	375	505	565
Housing dimensions not incl. fittings and connections				
Width net [mm]	560	710	810	1160
Height net [mm]	622	732	962	1590
Depth net [mm]	596	636	786	816
Performance Data Temperature				
Temperature range above ambient temperature to 300 °C	+22 °C	+22 °C	+15 °C	+15 °C
Temperature uniformity at 150°C [± K]	1.4	1.4	1.7	2
Temperature fluctuation at 150 °C [± K]	0.2	0.2	0.3	0.5
Heating up time to 150°C [min]	10	13	14	14
Recovery time after door was opened for 30 s at 150°C [min]	4	7	7	7
Tabellen				
Air change rate at 100°C [x/h]	170	105	55	40
Electrical data				
Nominal power [kW]	2	2,4	3,1	6
Fixtures				
Number of shelves (std./max.)	2/4	2/5	2/8	2/16

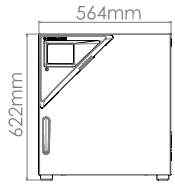
ORDERING INFORMATION [Art. No.]

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

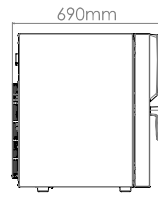
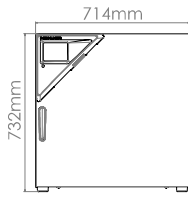
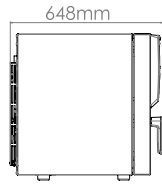
Voltage	Option model	M 56	M 115	M 260	M 720
400 V 3~ 50/60 Hz	Standard	–	–	9010-0373	9010-0374
230 V 1~ 50/60 Hz	Standard	9010-0371	9010-0372	–	–

DIMENSIONS incl. fittings and connections [mm]

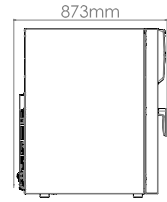
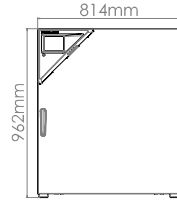
M 56



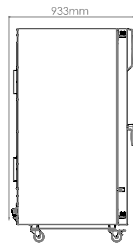
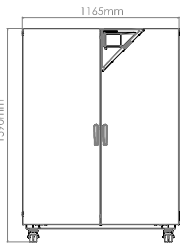
M 115



M 260



M 720



ORDERING INFORMATION OPTIONS

Designation	Description	M 56	M 115	M 260	M 720	Art. No.
	back					
	10 mm	•	•	•	•	8012-1287
	30 mm	•	•	•	•	8012-1371
	50 mm	•	•	•	•	8012-1387
	left					
	10 mm	•	•	•	•	8012-2296
	30 mm	•	•	•	•	8012-2302
	50 mm	•	•	•	•	8012-2305
	100 mm	•	•	•	•	8012-2299
Access port with silicone plug	right					
	10 mm	•	•	•	•	8012-2298
	30 mm	•	•	•	•	8012-2304
	50 mm	•	•	•	•	8012-2307
	100 mm	–	•	•	•	8012-2301
	top					
	10 mm	•	•	•	•	8012-2297
	30 mm	•	•	•	•	8012-2303
	50 mm	•	•	•	•	8012-2306
	100 mm	•	•	•	•	8012-2300
Analog output 4-20 mA	for temperature values (output not adjustable)	•	•	•	•	8012-2295
Calibration certificate, expanded	for temperature; for extending the measurement in center of chamber to include another test temperature	•	•	•	•	8012-2328

Designation	Description	M 56	M 115	M 260	M 720	Art. No.
Calibration certificate, temperature	for temperature, measurement in center of chamber at specified temperature	•	•	•	•	8012-2324
	temperature measurement incl. certificate and 27 measuring points at specified temperature	•	•	•	•	8012-2326
	temperature measurement incl. certificate, 15- 18 measuring points at specified temperature	•	•	•	•	8012-2325
	temperature measurement incl. certificate, 9 measuring points at specified temperature	•	•	•	•	8012-2327
Door gasket	made of FKM, silicone-free	•	-	-	-	8012-2331
		-	•	-	-	8012-2332
		-	-	•	-	8012-2333
Door lock	lockable door handle	•	•	-	-	8012-2335
		-	-	•	•	8012-2336
Gas-tight option model	Incl. additional measures for the greatest possible impermeability to gas; not in conjunction with access port or interior lighting option	•	-	-	-	8012-2308
		-	•	-	-	8012-2309
		-	-	•	-	8012-2310
		•	-	-	-	8012-2311
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	-	•	-	-	8012-2312
		-	-	•	-	8012-2313
		-	-	-	•	8012-2314
		•	-	-	-	8012-2315
Inert gas connection	with gas inlet and outlet, Ø 10 mm, incl. additional measures to provide the greatest possible impermeability to gas; not in conjunction with access port or interior lighting option	-	•	-	-	8012-2316
		-	-	•	-	8012-2317
		•	-	-	-	8012-2320
Inner chamber, reinforced	including 2 reinforced racks	•	-	-	-	8012-2320
	max. total load 85 kg	-	•	-	-	8012-2321
	max. total load 170 kg	-	-	•	-	8012-2322
	max. total load 350 kg	-	-	-	•	8012-2323
Lockable controller keyboard	Lockable controller keyboard with key-operated switch	•	•	•	•	8012-0529
Measurement of air exchange rate	in accordance with ASTM D5374, definition and protocol according to ambient temperature	•	•	•	•	8012-2329
Pt 100 temperature sensor	additional flexible Pt 100, interior, for displaying the temperature on the unit display	•	•	•	•	8012-2330
Viewing window and interior lighting	viewing window in door, 230 x 230 mm, and 15 W interior lighting	•	-	-	-	8012-0055
	230 V option model	-	•	-	-	8012-0057
	viewing window in each door, 290 x 470 mm, and 30 W interior lighting	-	-	-	•	8012-0063
	400 V option model	-	-	-	•	8012-0063
	viewing window in each door, 350 x 240 mm, and 30 W interior lighting	-	-	•	-	8012-0059
	230 V option model	-	-	•	-	8012-0059

ORDERING INFORMATION ACCESSORIES

Designation	Description	M 56	M 115	M 260	M 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
Designation	Description	M 56	M 115	M 260	M 720	Art. No.
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		•	–	–	–	8012-2033
		–	•	–	–	8012-2034
	chrome plated	–	–	•	–	8012-2035
		–	–	–	•	8012-2037
		•	–	–	–	8012-2085
		–	•	–	–	8012-2168
	stainless steel	–	–	•	–	8012-2169
		–	–	–	•	8012-2170
Rack accessories	fasteners (1 set of 4) for additional security of racks	•	•	•	•	8012-0531
Rubber pads	set anti-slip feet	•	•	•	–	8012-2030
		•	–	–	–	8012-2075
Shelf, perforated	Stainless steel	–	•	–	–	8012-2176
		–	–	•	–	8012-2177
		–	–	–	•	8012-2178
Table on castors	stable cart, castors with locking brakes, dimensions: W 1,000 x D 800 x H 780 mm	•	•	–	–	9051-0018
	stable cart, castors with locking brakes, dimensions: W 1,300 x D 800 x H 780 mm	–	–	•	–	9051-0019