

Model M 240 | Drying and heating chambers with forced convection and advanced program functions

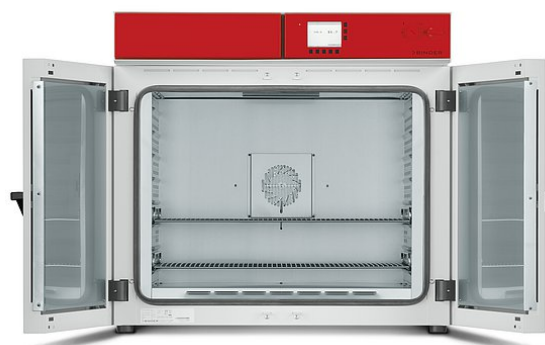
With a maximum of 300 °C and various programming options the M series material test chambers are ideal for material and aging tests. With a high air flow, the powerful fans ensure rapid heating.

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



Model 240



Model 240

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

ORDERING INFORMATION

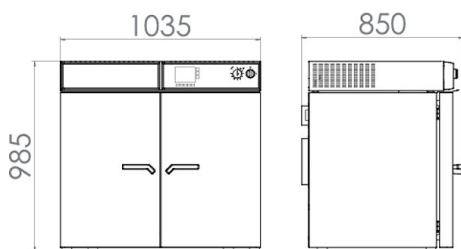
Interior volume [L]	Voltage	Option model	Version	Art.-No.
Model M 240				
240	230 V 1~ ph 50/60 Hz	Standard	M240-230V	9010-0203

TECHNICAL DATA

Description	M240-230V ¹
Article Number	9010-0203
Performance Data Temperature	
Temperature range 5 °C above ambient temperature to [°C]	300
Temperature variation at 150 °C [± K]	1.5
Temperature fluctuation at 150 °C [± K]	0.3
Heating-up time to 150 °C [min]	19
Recovery time after 30 seconds door open at 150 °C [min]	3
Air change data	
Air change (approx.) at 150 °C [x/h]	60
Electrical data	
Rated Voltage [V]	230
Power frequency [Hz]	50/60
Nominal power [kW]	2.7
Phase (Nominal voltage)	1~
Internal Dimensions	
Depth [mm]	510
Height [mm]	600
Width [mm]	800
Housing dimensions not incl. fittings and connections	
Width net [mm]	1035
Height net [mm]	985
Depth net [mm]	745
Measures	
Wall clearance back [mm]	160
Wall clearance sidewise [mm]	100
Interior volume [L]	240
Net weight of the unit (empty) [kg]	131
permitted load [kg]	70
Load per rack [kg]	30
Environment-specific data	
Energy consumption at 150 °C [Wh/h]	850
Fixtures	
Number of shelves (std./max.)	2/7

1 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 AND ACCESSORIES

Designation	Description	*	Art.-No.
Access port with silicone plug	back		
	10 mm	01	8012-1287
	30 mm	01	8012-1371
	50 mm	01	8012-1387
	left		
	10 mm	01	8012-1280
	30 mm	01	8012-1363
	50 mm	01	8012-1379
	100 mm	01, 11	8012-1511
	right		
	10 mm	01	8012-1273
	30 mm	01	8012-1358
	50 mm	01	8012-1375
	100 mm	01, 11	8012-1508
	top		
	10 mm	01	8012-1266
	30 mm	01	8012-1367
	50 mm	01	8012-1383
Analog output 4-20 mA	for temperature values (output not adjustable)	–	8012-0480
APT-COM™ 4 BASIC-Edition	for simple logging and documentation requirements with up to 5 networked units. version 4, BASIC edition	19	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	19	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	19	9053-0040
Base	with casters, height-adjustable, with unit feet retainer	–	9051-0034
Calibration certificate, expanded	for temperature; for extending the measurement in center of chamber to include another test temperature	–	8012-1123
Calibration certificate, temperature	for temperature, measurement in center of chamber at specified temperature	–	8012-1142
	temperature measurement incl. certificate and 27 measuring points at specified temperature	–	8012-1601
	temperature measurement incl. certificate, 15- 18 measuring points at specified temperature	–	8012-1580
	temperature measurement incl. certificate, 9 measuring points at specified temperature	–	8012-1559
Data Logger Kit	T 350: For continuous temperature logging from 0 °C to 350 °C; kit includes 1 data logger, Pt 100 sensor with 2 m extension cable and 1 magnetic fixture for mounting to the BINDER unit	19	8012-0714
Data Logger Software	LOG ANALYZE software kit, configuration and evaluation software for all BINDER Data Logger Kits (incl. USB data cable)	19	8012-0821
Door gasket	made of FKM, silicone-free	03	8012-1309
Door lock	lockable door handle	–	8012-1256
HEPA air filter	On fresh air supply for unit; filter classification H14 (acc. to. EN 1822-1:2009, > 99.995% at 0.3 µm)	–	8012-0222
Inner chamber, reinforced	including 2 reinforced racks	–	8012-0341
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	–	8012-1199
pH-neutral detergent	concentrated, for gentle remove of residual contaminants; 1 kg	–	1002-0016
Pt 100 temperature sensor	additional flexible Pt 100, interior, for displaying the temperature on the unit display	–	8012-0334
Rack	chrome plated	–	6004-0004
	stainless steel	–	6004-0009
Rack accessories	fasteners (1 set of 4) for additional security of racks	–	8012-0531

* Notes › See last page

Designation	Description	*	Art.-No.
Rack, reinforced	stainless steel, with fasteners (1 set of 4)	–	8012-0345
Rubber pads	set anti-slip feet	–	8012-1887
Shelf, perforated	Stainless steel	–	6004-0031
Table on castors	stable cart, casters with locking brakes, dimensions: W 1,300 x D 800 x H 780 mm	–	9051-0019
Viewing window and interior lighting	viewing window in each door, 350 x 240 mm, and 30 W interior lighting	–	8012-0059

* Notes › See last page

SERVICES

Designation	Description	*	Art.-No.
Installation services			
Installation	and set up of unit at operating location, connect to existing connections	13, 18	DL10-0100
Instruction	unit function instructions for operation and programming of the controller	18	DL10-0500
Preventive maintenance			
Preventive maintenance	Executive of equipment inspection according to maintenance plan	14, 18	DL20-0200
Calibration services			
Calibration temperature incl. certificate	including certificate, one measuring point in center of chamber at specified temperature	14, 16, 17, 18	DL30-0101
Measurement of air exchange rate	including certificate (in accordance with ASTM D5374)	14, 16, 17, 18	DL33-0000
Temperature measurement 18 measuring points	including certificate, 18 measuring points at specified temperature	14, 16, 17, 18	DL30-0118
Temperature measurement 27 measuring points	including certificate, 27 measuring points at specified temperature	14, 16, 17, 18	DL30-0127
Temperature measurement 9 measuring points	including certificate, 9 measuring points at specified temperature	14, 16, 17, 18	DL30-0109
Validation services			
Execution of IQ/OQ	in accordance with qualification folder	15, 18, 20	DL41-0200
Execution of IQ/OQ/PQ	in accordance with customer's requirement, price: on request	15, 18	DL44-0500
Qualification folder IQ/OQ	supporting documents for validation performed by customer, consisting of: IQ/OQ checklists, unit schematics, QM certificate in accordance with ISO 9001	15, 18, 20	8012-0862
Qualification folder IQ/OQ/PQ	supporting documents for validation performed by customer, in accordance with customer's requirement, extension of Qualification folder IQ/OQ by chapter PQ	15, 18	8012-0950
Warranty service			
Extension of the warranty from 2 to 3 years	beginning with the date of delivery, wearing parts are not included	–	DL01-0041
Extension of the warranty from 2 to 5 years	beginning with the date of delivery, wearing parts are not included	–	DL01-0042

* Notes › See last page



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The specifications listed in this brochure are subject to change by the manufacturer and therefore cannot be guaranteed to be correct. If there are aspects of the specification that must be guaranteed, please provide these to our sales team so that details can be confirmed.

