



Bringing Test Innovation to you

Datasheet

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Model M 240 | Drying and heating chambers Classic.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.

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 [cu.ft.]	Voltage	Option model	Version	ArtNo.
Model M 240				
8.5	230 V 1 ph 50/60 Hz	Standard	M240-230V	9010-0203



TECHNICAL DATA

Article Number9010-0203Performace Data Temperature300Temperature range 5 °C above ambient temperature 10 °C [kt]300Temperature variation at 150 °C [kt]1.5Temperature fuctuation at 150 °C [kt]0.3Recovery time after 30 seconds door open at 150 °C [min]9Recovery time after 30 seconds door open at 150 °C [min]6Air change (approx.) at 150 °C [ch]6Recovery time after 30 seconds door open at 150 °C [min]80Air change (approx.) at 150 °C [ch]30Power frequency [kt]20Power frequency [kt]20Power frequency [kt]50%0Nomial power [kt]2.7Phase (Nomial voltage) [ph]10Outer dimension2.7Width net [mm]1035Widt learnen sidewise [mm]160Widt learnen sidewise [mm]160Widt learnen sidewise [mm]80Widt learnen sidewise [mm]600Widt learnen sidewise [mm]600Widt learnen sidewise [mm]600Widt [mm]600Dept net [mm]600Dept net [mm]600Net weight of the unit (empty) [fig]131Net weight of the unit (empty) [fig]131permittel cold [fig]60Interor volume [L]20Net weight of the unit (empty) [fig]131permittel cold [fig]60Erver onsumers section [fig]60Reasures151Erver onsumers section [fig]60Net weight of the unit (Description	M240-230V ¹
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Environment-specific data Energy consumption at 150 °C [Wh/h] 850 Fixtures	permitted load [kg]	70
Energy consumption at 150 °C [Wh/h] 850 Fixtures	Load per rack [kg]	30
Fixtures	Environment-specific data	
	Energy consumption at 150 °C [Wh/h]	850
Number of shelves (std./max.) 2/7	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.

OPTIONS AND ACCESSORIES



Designation	Description	*	ArtNo.
	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
ccess port with silicone	100 mm	01, 11	8012-1511
lug	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
nalog output, 4 – 20 nA	for temperature values (output not adjustable)	-	8012-0480
ase	with casters	-	9051-0034
alibration certificate, xpanded	for temperature; for extending the measurement in center of chamber to include another test temperature	-	8012-1123
Calibration certificate,	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
emperature	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
art	Cart – stable cart, casters with locking brakes, dimensions: W 1,300 x D 800 x H 780 mm	-	9051-0019
ata 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
ata Logger Software	LOG ANALYZE software kit, configuration and evaluation software for all BINDER Data Logger Kits (incl. USB data cable)	19	8012-0821
oor gasket	made of FKM, silicone-free	03	8012-1309
oor lock	lockable door handle	-	8012-1256
EPA 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
nner chamber, einforced	including 2 reinforced racks (max. total load 250 kg, max. load per rack 70 kg)	-	8012-0341
	RS 422 cable set and RS 232 / RS 422 interface converter for connection to 10-way plug distributor or for connection to a unit		
	120 V, 60 Hz option model	-	8012-0557
	230 V, 50/60 Hz option model	-	8012-0556
Interface converter	RS 422 cable set and RS 422 / Ethernet interface converter for connection to 10-way plug distributor or for connection to a unit		
	120 V, 60 Hz option model	-	8012-0405
	230 V, 50/60 Hz option model	-	8012-0380
iterface converter, SB / RS422	RS 422 cable set and RS 422 / USB interface converter for connection to 10-way plug distributor or for connection to a unit (USB-powered converter)	-	8012-0665
ockable controller eyboard	Lockable controller keyboard with key-operated switch	-	8012-0529
leasurement of air xchange rate	in accordance with ASTM D5374, definition and protocol according to ambient temperature	-	8012-1199
H-neutral detergent	concentrated, for gentle remove of residual contaminants; 1 kg	_	1002-0016
Notes > See last page	······································		



Designation	Description	*	ArtNo.
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	Rack accessories – fasteners (1 set of 4) for additional security of racks	-	8012-0531
Rack, reinforced	stainless steel, with 1 set of 4 fasteners, max. load 70 kg	-	8012-0345
RS 422 interface	modular plug distributor for 10 RS 422 interfaces	-	8012-0295
RS 422 interface, cable (15 m)	RS 422 connection cable (15 m) between plug distributor and RS 422 interface		5023-0036
RS 422 interface, cable (50 m)	RS 422 extension cable (50 m) between interface converter and unit or RS 232 / RS 422 plug distributor	-	5023-0117
Rubber pads	set of 4 anti-slip feet, for safe stacking of unit	10	8012-0001
Shelf, perforated	stainless steel	-	6004-0031
	APT-COM [™] communications software		
Software	version 2 to 3, GLP edition	19	9053-0016
	version 3, BASIC edition	19	9053-0014
	version 3, GLP edition	19	9053-0015
	version 3, STANDARD edition	19	9053-0013
	APT-COM [™] communications software, price: for free		
	version 3, GLP DEMO Edition	19	9053-0008
Viewing window and interior lighting	viewing window in each door, 350 x 240 mm, and 30 W interior lighting		
	230 V option model	-	8012-0059

* Notes > See last page

SERVICES

Designation	Description	*	ArtNo.
Installation services			
Data Logger Kit installation service	unit function instructions for operation and programming of the controller	18	DL100600
Installation	and set up of unit at operating location, connect to existing connections	13, 18	DL100100
Preventive maintenance			
Preventive maintenance	Execution of equipment inspection according to maintenance plan	14, 18	DL200200
Calibration services			
Data Logger Kit calibration service	including certificate, one measuring point in center of chamber at specified temperature	14, 16, 17, 18	DL300101
Measurement of air exchange rate	including certificate (in accordance with ASTM D5374)	14, 16, 17, 18	DL330000
Temperature measurement 18 measuring points	including certificate, 18 measuring points at specified temperature	14, 16, 17, 18	DL300118
Temperature measurement 27 measuring points	including certificate, 27 measuring points at specified temperature	14, 16, 17, 18	DL300127
Temperature measurement 9 measuring points	including certificate, 9 measuring points at specified temperature	14, 16, 17, 18	DL300109
Validation services			
Execution of IQ/OQ	in accordance with qualification folder	15, 18, 20	DL410200
Execution of IQ/OQ/PQ	in accordance with customer's requirement, price: on request	15, 18	DL440500
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

* Notes > See last page

BINDER

Designation	Description	*	ArtNo.
Warranty service			
Extension of the warranty from 2 to 3 years	beginning with the date of delivery, wearing parts are not included	-	DL010041
Extension of the warranty from 2 to 5 years	beginning with the date of delivery, wearing parts are not included	-	DL010042

* Notes > See last page



NOTES

- Condensation may occur in the area around the access port. Access ports may be placed in custom locations for an additional charge. 01 02
- UL mark is not granted when this option is used. Heat resistant only to max. 200 °C.
- 03
- Only available on units rated for 230 V. 04
- 06 Heating-up time may increase as a result of the lower heat conductivity. 07 The additional heat input may affect the temperature behavior.
- Not in conjunction with the optional access port, door with window and interior lighting. 09
- Not available on 23-liter units.
- 10 11 12 Not available on 23- or 53-liter units.
- Only available on units rated for 230 V or 400 V.
- 13 Installation and connections take place at unit location; transport within the company only upon consultation.
- 14 We recommend a BINDER service contract (see the chapter on BINDER Service) to cover unit inspections, calibrations and validations
- 15 OQ according to Yellow Paper = completed factory validation documentation of all OQ checklists.
- Sensor calibration is performed in an accredited calibration laboratory. 16 17
- Calibration is performed according to the BINDER factory standard. Quoted prices do not include travel costs. Please refer to the chapter on BINDER Service for travel costs for your region. Quoted prices for services performed in Switzerland do not 18 include a country-specific added fee (available on request).
- For additional accessories, refer to the Process documentation chapter. 19
- 20 When ordering IQ/OQ qualification folders and associated IQ/OQ execution on one order, we offer a 15 % discount for both items.
- When ordering IQ/OQ/PQ qualification folders and associated IQ/OQ/PQ execution on one order, we offer a 15 % discount for the item of the IQ/OQ/PQ folder.





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This product datasheet has been provided by John Godrich & SJ Electronics in Partnership with BINDER



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