

## Model M 260 | 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 260

#### **IMPORTANT FEATURES**

- Temperature range: +14°C above ambient temperature up to +300°C
- High temperature accuracy thanks to APT.line™ technology with increased heating output
- Reinforced fan with adjustable speed
- Electromechanical control of the exhaust air flap
- Intuitive touchscreen controller with time-segment and real-time programming Internal data logger, measured values can be read out in open format via USB
- 2 chrome-plated racks

- 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 backup sensor Pt 100
- · Computer interface: Ethernet

#### **ORDERING INFORMATION**

Designation	Option model	Interior volume	Rated Voltage	Power frequency	Article Number
M260-400V	Standard	256 L	400 V	50/60 Hz	9010-0373



#### **TECHNICAL DATA**

ILCHNICAL DATA	
Data	
Designation	M260-400V
Article Number	9010-0373
Option model	Standard
Performance Data Temperature	
Temperature range	+14 °C above ambient temperature to 300 °C
Temperature uniformity at 150°C	1.5 ± K
Temperature fluctuation at 150°C	0.4 ± K
Heating up time to 150°C	13 min
Recovery time after door was opened for 30 s at 150°C	6 min
Air change data	
Air change rate at 100°C	65 x/h
Electrical data	
Rated Voltage	400 V
Power frequency	50/60 Hz
Nominal power	3,1 kW
Jnit fuse	16,0 A
Phase (Nominal voltage)	3~
Measures	
nterior volume	256 L
Net weight of the unit (empty)	86 kg
oad per rack	40 kg
Permitted load	270 kg
Wall clearance back	160 mm
Nall clearance sidewise	100 mm
Housing dimensions not incl. fittings and connections	
Vidth net	810 mm
Height net	962 mm
Depth net	786 mm
nternal Dimensions	
nterior width	650 mm
Interior height	780 mm
nterior depth	505 mm
Jnit doors	1
Environment-specific data	
Sound-pressure level	50 dB(A)
Energy consumption at 100°C	370 Wh/h
Energy consumption at 150°C	560 Wh/h
Fixtures	
Number of shelves (std./max.)	2/8
Ill technical data is enecified for unleaded units with standard equipmen	ant at an ambient temperature of 122 °C and a power supply voltage fluctuation

All technical data is specified for unloaded units with standard equipment at an ambient temperature of  $\pm 20^{\circ}$  C  $\pm 3^{\circ}$ C and a power supply voltage fluctuation of  $\pm 10^{\circ}$  %. 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**

Designation	Description	Option model	*	Article Number
		10 mm		8012-2296
	left	30 mm		8012-2302
	leit	50 mm		8012-2305
		100 mm		8012-2299
		10 mm		8012-2298
A cooss nort with silicons plus	right	30 mm		8012-2304
Access port with silicone plug		50 mm	1	8012-2307
		100 mm		8012-2301
		10 mm		8012-2297
	ton	30 mm		8012-2303
	top	50 mm		8012-2306
		100 mm		8012-2300
Analog output 4-20 mA	for temperature values (output not adjustable)		2	8012-2295
Calibration certificate, expanded	for temperature; for extending the measurement in center of chamber to include another test temperature $$			8012-2328
	for temperature, measurement in center of chamber at specified temperature	_		8012-2324
Calibration certificate, temperature	temperature measurement incl. certificate, 9 measuring points at specified temperature			8012-2327
	temperature measurement incl. certificate, 15- 18 measuring points at specified temperature	_		8012-2325
	temperature measurement incl. certificate and 27 measuring points at specified temperature	-		8012-2326
Door gasket	made of FKM, silicone-free	-		8012-2333
Door lock	lockable door handle	_		8012-2335
Gas-tight option model	Incl. additional measures for the greatest possible impermeability to gas; not in conjunction with access port or interior lighting option	-		8012-2310
HEPA air filter	On fresh air supply for unit; filter classification H14 (acc. to. EN 1822-1:2009, > 99.995% at 0.3 $\mu$ m); not in conjunction with reinforced heating output, reinforced fan	-		8012-2313
lnert gas connection	With gas inlet and outlet, $\emptyset$ 10 mm, incl. additional measures for the greatest possible impermeability to gas; not in conjunction with access port or interior lighting option	-		8012-2317
nner chamber, reinforced	max. total load 300 kg	_		8012-2322
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. (Not combined with specimen temperature control option)	_		8012-2330
Specimen temperature control	With additional specimen temperature sensor. Standard function 2 zero-voltage relay contacts not applicable.	-		8012-2343

## **ACCESSORIES**

Designation	Description	Option model	Article Number
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
Base	the base equipped with casters is used for the secure positioning and leveling of a BINDER drying and heating chamber		9051-0034



Designation	Description	Option model	Article Number
	IQ/OQ/PQ documents – supporting documents for validation performed by customers,	Digital in PDF format	7057-0005
Qualification documents	according to customer requirements, PQ section added to qualification folder IQ/OQ; parameters: temperature, $CO_2$ , $O_2$ – or pressure, depending on unit	Hard copy inside folder	7007-0005
	IQ/OQ documents – supporting documents for validation performed by customers,	Digital in PDF format	7057-0001
	consisting of: $IQ/OQ$ checklists incl. calibration guide and comprehensive unit documentation; parameters: temperature, $CO_2$ , $O_2$ , pressure, depending on unit	Hard copy inside folder	7007-0001
Rack		chrome plated	8012-2042
		stainless steel	8012-2169
Rack, heavy load	Stainless steel, max. load per rack 70 kg		8012-2184
Rubber pads	set anti-slip feet	_	8012-2030
Shelf, perforated		Stainless steel	8012-2177
Table on castors	stable cart, casters with locking brakes, dimensions: W 1,300 x D 800 x H 780 mm		9051-0019
pH-neutral detergent	concentrated, for gentle remove of residual contaminants; 1 kg	_	8012-2250

## **SERVICES**

Designation Description		* Article Number	
1-year warranty extension	The warranty is extended by 1 year from the delivery date, wear parts are excluded	DL50-0010	
BRONZE 3-year maintenance contract	Maintenance service as contractually agreed, visual inspection of mechanical and electrical components, check of control response, 20% discount on spare parts	DL20-0710	
Calibratian sortificate	Calibration of one (1) test temperature specified by the user in center of chamber, including certificate	DL30-0101	
Calibration certificate, temperature	Extension of calibration of one (1) additional test temperature specified by the user in the center of the usable space, including certificate		
Execution of IQ/OQ	Execution of IQ/OQ in accordance with qualification folder	DL41-0200	
Execution of IQ/OQ/PQ	Execution of IQ/OQ/PQ in accordance with qualification folder	DL44-0500	
GOLD 3-year maintenance contract	Maintenance service as contractually agreed, visual inspection of mechanical and electrical components, check of control response, 20% discount on spare parts, testing of all key functions, replacement of wear parts, calibration of one test temperature specified by the user in the center of the usable space, including certificate	DL20-0910	
Maintenance	One-off maintenance service in accordance with maintenance schedule. Visual inspection of mechanical and electrical components, testing of all key functions. Calibration of a test temperature specified by the user in center of usable space without certificate	DL20-0200	
Measurement of air exchange rate	including certificate (in accordance with ASTM D5374)	DL33-0000	
SILVER 3-year maintenance contract	Maintenance service as contractually agreed, visual inspection of mechanical and electrical components, check of control response, 20% discount on spare parts, testing of all key functions, calibration of one test temperature specified by the user in the center of the usable space, without certificate		
Temperature measurement, 9 measuring points	Temperature measurement with 9 measuring points with a set value specified by the user, including certificate		
Temperature measurement, 18 measuring points	Temperature measurement with 18 measuring points with a set value specified by the user, including certificate		
Temperature measurement, 27 measuring points	Temperature measurement with 27 measuring points with a set value specified by the user, including certificate		
Unit commissioning	Connect the unit to the customer-side connections (electricity, water, wastewater, gas), basic functions check, brief operating instructions. (excl.: unpacking, setup, controller instructions, programming, installation work)	DL10-0100	
Unit instructions	Instruction regarding operating principle and basic functions of the unit, operation of the control electronics including programming	5 DL10-0500	



#### **NOTES**

- O1 Condensation may occur in the area around the access port. Access ports may be placed in custom locations for an additional charge.
- 02 UL mark is not granted when this option is used.
- 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 include a country-specific added fee (available on request).

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