

# 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 CHARACTERISTICS**

- Temperature range: +15°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



#### **TECHNICAL DATA**

Data	
Designation	M260-400V
Article Number	9010-0373
Option model	Standard
Performance Data Temperature	
Temperature range	+15 °C above ambient temperature to 300 °C
Temperature uniformity at 150°C	1.7 ± K
Temperature fluctuation at 150°C	0.3 ± K
Heating up time to 150°C	14 min
Recovery time after door was opened for 30 s at 150°C	7 min
Air change data	7
Air change rate at 100°C	
Electrical data	)), (I)
Rated Voltage	400 V
Power frequency	50/60 Hz
Nominal power	3,1 kW
Unit fuse	16 A
Phase (Nominal voltage)	3~
Measures	
Interior volume	256 L
Net weight of the unit (empty)	85 kg
Load per rack	40 kg
Permitted load	270 kg
Wall clearance back	160 mm
Wall clearance sidewise	100 mm
Housing dimensions not incl. fittings and connections	
Width net	810 mm
Height net	962 mm
Depth net	786 mm
nternal Dimensions	
Interior width	650 mm
nterior height	780 mm
Interior depth	505 mm
Unit doors	1
Environment-specific data	
Sound-pressure level	50 dB(A)
Energy consumption at 150°C	580 Wh/h
Fixtures	
Number of shelves (std./max.)	2/8

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

Designation	Description	Option model	* Article Number
		10 mm	8012-2296
	1.6	30 mm	8012-2302
	left	50 mm	8012-2305
		100 mm	8012-2299
		10 mm	8012-2298
A acces mort with ciliagne plus	::-la	30 mm	8012-2304
Access port with silicone plug	right	50 mm	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
Calibratian andificate	temperature measurement incl. certificate, 9 measuring points at specified temperature		8012-2327
Calibration certificate, temperature	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 ate	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.	_	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
Qualification documents	IQ/OQ/PQ documents – supporting documents for validation performed by customers,	Hard copy inside folder	7057-0005
	according to customer requirements, PQ section added to qualification folder IQ/OQ; parameters: temperature, $CO_2$ , $O_2$ – or pressure, depending on unit		7007-0005



Designation	Description	Option model	Article Number
	IQ/OQ documents – supporting documents for validation performed by customers, consisting of: IQ/OQ checklists incl. calibration guide and comprehensive unit	Digital in PDF format	7057-0001
	documentation; parameters: temperature, CO <sub>2</sub> , O <sub>2</sub> , pressure, depending on unit	Hard copy inside folder	7007-0001
Rack	chrome plated	8012-2035	
	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
Calibration cortificate	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	DL30-0102
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
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
Maintenance service as contractually agreed, visual inspection of mechanical and electrical components, check of 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		DL20-0810
Temperature measurement, 9 measuring points	lemperature measurement with 9 measuring points with a set value specified by the user, including certificate	
emperature measurement, 18 neasuring points  Temperature measurement with 18 measuring points with a set value specified by the user, including certificate		DL30-0118
Temperature measurement, 27 measuring points	Temperature measurement with 27 measuring points with a set value specified by the user, including certificate	DL30-0127
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**

- 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).



Pricing on any accessories shown can be found by keying the part number into the search box on our website.

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.

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