

Model LIT MK 720 | Battery test chambers with safety equipment for rapid temperature changes

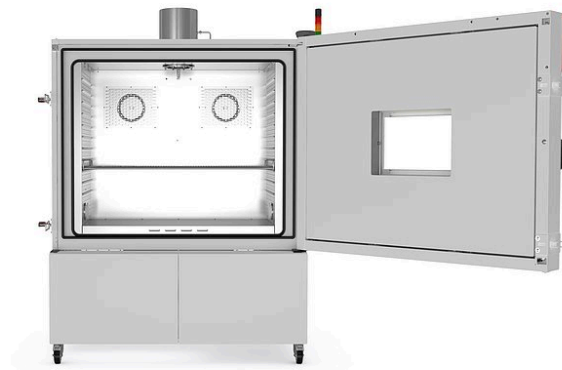
The BINDER MK series chamber is suitable for all heat and cold tests between -40 °C and 180 °C. The MK is a clever alternative to complex individual solutions for cyclical temperature tests.

BENEFITS

- Safety thanks to extensive protective measures
- Homogeneous climate conditions thanks to APT.line™ preheating chamber
- Extensive programming and data collection
- Excellent overview of the test object thanks to large heated viewing window



Model 720



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MAIN FEATURES

- Temperature range: -40 °C to 180 °C
- APT.line™ preheating chamber technology
- Programmable condensation protection for test material
- Heated viewing window with LED interior lighting
- BINDER Multi Management Software APT-COM™ Basic Edition
- Troubleshooting system with visual and audible alarms
- 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 access ports with silicone plugs, 80 mm, left and right
- Class 2 independent adjustable temperature safety device (DIN 12880) with visual alarm
- 4 castors, two with brakes
- Computer interface: Ethernet
- 230 V power socket on the right-side control panel
- Adjustable ramp function
- Integrated chart recorder
- Real-time clock
- Door heating
- 1 stainless steel rack
- Inner chamber made of stainless steel
- CFC-free refrigerant R-452A
- Cooling with compressor cooling unit

OPTIONAL EQUIPMENT

- Electromechanical door-locking mechanism
- Additional access ports available in various sizes and locations
- Multi Management Software APT-COM for managing, recording, and documenting unit parameters
- Services – wide range of services to ensure that the unit functions correctly

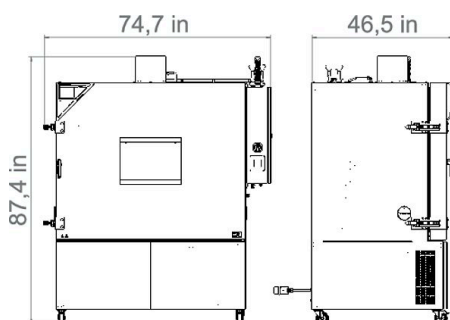
ORDERING INFORMATION

Interior volume [cu.ft.]	Voltage	Option model	Version	Art.-No.
25.9	400 V 3~ 50 Hz	Standard	LITMK720-400V	9020-0403
	480 V 3~ 60 Hz	Standard	LITMK720-480V-C	9020-0405

TECHNICAL DATA

Description	LITMK720-400V ¹	LITMK720-480V-C ¹
Article Number	9020-0403	9020-0405
Performance Data Temperature		
Temperature range	-40...110	-40...110
Temperature variation depending on setpoint [± K]	0.3...2	0.3...2
Temperature fluctuation depending on setpoint [± K]	0.1...0.5	0.1...0.5
Average heating-up rate according to IEC 60068-3-5 [K/min]	4	4
Average cooling down time according to IEC 60068-3-5 [K/min]	3.4	3.4
Max. heat compensation at 25 °C [W]	3600	3600
Electrical data		
Rated Voltage [V]	400	480
Power frequency [Hz]	50	60
Nominal power [kW]	8.7	8.7
Unit fuse [A]	16	16
Phase (Nominal voltage)	3~	3~
Measures		
Interior volume [cu.ft.]	25.9	25.9
Net weight of the unit (empty) [lbs]	1257	1151
Permitted load [lbs]	353	353
Load per rack [lbs]	88	88
Viewing window width [in]	20.02	20.02
Viewing window height [in]	11.82	11.82
Wall clearance back [in]	11.82	11.82
Wall clearance sidewise [in]	7.88	7.88
Internal Dimensions		
Width [in]	47.3	47.3
Height [in]	40.2	40.2
Depth [in]	23.64	23.64
Doors		
Unit doors	1	1
Housing dimensions not incl. fittings and connections		
Width net [in]	70.7	70.7
Height net [in]	79	79
Depth net [in]	46.7	46.7
Environment-specific data		
Sound-pressure level [dB(A)]	65	67
Fixtures		
Number of shelves (std./max.)	1/11	1/11

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**

Designation	Description	*	Art.-No.
Calibration certificate, temperature	temperature measurement incl. certificate and 27 measuring points at specified temperature	-	8012-1602
Heated access port	On left side, including locking latch and silicone plug 150 mm diameter	-	8012-1999
	additional flexible Pt 100, interior, for displaying the temperature on the unit display	-	8012-1093
	Additional serial interface can be used parallel to Ethernet, for Multi Management Software APT-COM™	-	8012-1768
	Controlled via control contact in time program or manually	-	8012-2011
	for controlling 3 relay contacts via program regulators, accessible via 6-pin DIN socket (max. 24 V - 2.5 A)	-	8012-1095
	for temperature values (output not adjustable)	-	8012-1084
	for temperature; for extending the measurement in center of chamber to include another test temperature	-	8012-1124
	for the connection to an existing pressurized air network	-	8012-1797
	left		
	30 mm	01	8012-1322
	50 mm	01	8012-1328
	80 mm	01	8012-1334
	100 mm	01, 11	8012-1542
	125 mm	01, 11	8012-1351
Options/Accessories	lockable door handle	-	8012-1861
	Measurement in center of chamber at specified temperature	-	8012-1143
	notch-type access port in door, 100 x 35 mm	-	8012-1851
	temperature measurement incl. certificate, 15- 18 measuring points at specified temperature	-	8012-1581
	temperature measurement incl. certificate, 9 measuring points at specified temperature	-	8012-1560
	top		
	80 mm	01	8012-1536
	100 mm	01, 11	8012-1530
	125 mm	01, 11	8012-1533

* Notes › See last page

ACCESSORIES

Designation	Description	*	Art.-No.
Multi Management Software	Multi Management Software APT-COM™		
	version 4, GLP edition	19	9053-0042
	version 4, PROFESSIONAL edition	19	9053-0040

* Notes › See last page

Designation	Description	*	Art.-No.
	Stainless steel	-	8009-0511
	stainless steel	-	6004-0102
	concentrated, for gentle remove of residual contaminants; 1 kg	-	1002-0016
	fasteners (1 set of 4) for additional security of racks	-	8012-0620
	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
Options/Accessories	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
	RS 422 cable set and RS 485 / RS 422 interface converter for connection to 10-way plug distributor		
	115 V option model	-	8012-0599
	230 V option model	-	8012-0589
	stainless steel, with fasteners (1 set of 4)	-	8012-0684

* Notes › See last page

SERVICES

Designation	Description	*	Art.-No.
Installation services			
Services	Unit function instructions for operation and programming of the controller	18	DL10-0710
	Unpacking and setting up of unit, connecting to existing connections, and checking function	13, 18	DL10-0310
Preventive maintenance			
Services	Executive of equipment inspection according to maintenance plan	14, 18	DL20-0510
Calibration services			
	CO ₂ calibration at a specified value, measurements are taken with analyzed test gas at 5%, including certificate	14, 16, 17, 18	DL30-0403
	Expansion – including certificate, each additional measuring point in center of chamber at specified test temperature	14, 16, 17, 18	DL30-0102
Services	Temperature calibration with 1 measuring point in center of chamber at a specified test temperature, including certificate	14, 16, 17, 18	DL30-0101
	Temperature measurement with 18 measuring points at a specified test temperature, including certificate	14, 16, 17, 18	DL30-0118
	Temperature measurement with 27 measuring points at a specified test temperature, including certificate	14, 16, 17, 18	DL30-0127
	Temperature measurement with 9 measuring points at a specified test temperature, including certificate	14, 16, 17, 18	DL30-0109
Validation services			
Services	Execution of IQ/OQ in accordance with qualification folder	15, 18	DL41-0200
	Execution of IQ/OQ/PQ in accordance with qualification folder	15, 18	DL44-0500
Warranty service			
Services	The warranty is extended from 2 to 3 years from the delivery date, wear parts are excluded	-	DL01-1041
	The warranty is extended from 2 to 5 years from the delivery date, wear parts are excluded	-	DL01-1042

* Notes › See last page

NOTES

- 01 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.
- 03 Heat resistant only to max. 200 °C.
- 04 Only available on units rated for 230 V.
- 07 The additional heat input may affect the temperature behavior.
- 09 Not in conjunction with the optional access port, door with window and interior lighting.
- 10 Not available on 23-liter units.
- 11 Not available on 23- or 53-liter units.
- 12 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 to cover unit inspections, calibrations and validations.
- 15 OQ according to Yellow Paper = completed factory validation documentation of all OQ checklists.
- 16 Sensor calibration is performed in an accredited calibration laboratory.
- 17 Calibration is performed according to the BINDER factory standard.
- 18 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).
- 19 For additional accessories, refer to the Process documentation chapter.

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