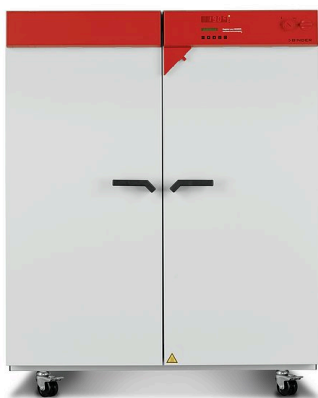


# Model FP 720 | Drying and heating chambers with forced convection and program functions

A BINDER material test chamber with mechanical convection of the FP series provides reliably short drying times and particularly fast heating – even for chambers under full loads.

## 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 720



Model 720

## MAIN FEATURES

- Temperature range: room temperature plus 5 °C to 300 °C
- APT.line™ preheating chamber technology
- Adjustable fan speed
- Adjustable exhaust air flap
- Controller with time-segment and real-time 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	Art.-No.
25.4	400 V 3~ 50/60 Hz	Standard	FP720-400V	9010-0267
	208 V 3~ 60 Hz	Standard	FP720UL-208V	9010-0268

**TECHNICAL DATA**

Description	FP720-400V <sup>1</sup>	FP720UL-208V <sup>1</sup>
<b>Article Number</b>	<b>9010-0267</b>	<b>9010-0268</b>
<b>Performance Data Temperature</b>		
Temperature range +5 °C above ambient temperature to	300 °C	300 °C
Temperature variation at 150 °C [± K]	2	2
Temperature fluctuation at 150 °C [± K]	0.3	0.3
Heating-up time to 150 °C [min]	39	39
Recovery time after 30 seconds door open at 150 °C [min]	20	20
<b>Air change data</b>		
Air change (approx.) at 150 °C [x/h]	12	12
<b>Electrical data</b>		
Rated Voltage [V]	400	208
Power frequency [Hz]	50/60	60
Nominal power [kW]	5	5
Unit fuse [A]	3 x 16	3 x 16
Phase (Nominal voltage)	3~	3~
<b>Measures</b>		
Interior volume [cu.ft.]	25.4	25.4
Net weight of the unit (empty) [lbs]	428	428
Permitted load [lbs]	265	265
Load per rack [lbs]	99	99
Wall clearance back [in]	6.3	6.3
Wall clearance sidewise [in]	3.94	3.94
<b>Internal Dimensions</b>		
Width [in]	39.4	39.4
Height [in]	47.3	47.3
Depth [in]	24.03	24.03
<b>Housing dimensions not incl. fittings and connections</b>		
Width net [in]	48.7	48.7
Height net [in]	60.3	60.3
Depth net [in]	34.08	34.08
<b>Environment-specific data</b>		
Energy consumption at 150 °C [Wh/h]	1320	1320
<b>Fixtures</b>		
Number of shelves (std./max.)	2/16	2/16

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.	
<b>Calibration certificate, temperature</b>	temperature measurement incl. certificate and 27 measuring points at specified temperature	-	8012-1597	
	additional flexible Pt 100, interior, for displaying the temperature on the unit display	-	8012-0504	
	back			
	10 mm	01	8012-1286	
	30 mm	01	8012-1370	
	50 mm	01	8012-1386	
	for controlling 3 relay contacts via program regulators, accessible via 6-pin DIN socket (max. 24 V - 2.5 A)			
	120/208 V option model	-	8012-0472	
	230/400 V option model	-	8012-0471	
	for temperature values (output not adjustable)	02	8012-0481	
	for temperature; for extending the measurement in center of chamber to include another test temperature	-	8012-1119	
	in accordance with ASTM D5374, definition and protocol according to ambient temperature	-	8012-1198	
	including 2 reinforced racks	-	8012-1258	
	left			
	10 mm	01	8012-1279	
	30 mm	01	8012-1362	
	50 mm	01	8012-1378	
	100 mm	01, 11	8012-1510	
	lockable door handle	-	8012-1255	
	made of FKM, silicone-free	03	8012-1314	
	<b>Options/Accessories</b>	Measurement in center of chamber at specified temperature	-	8012-1138
		On fresh air supply for unit; filter classification H14 (acc. to EN 1822-1:2009, > 99.995% at 0.3 µm)	-	8012-1169
		right		
	10 mm	01	8012-1272	
	30 mm	01	8012-1357	
	50 mm	01	8012-1374	
	100 mm	01, 11	8012-1507	
		temperature measurement incl. certificate, 15- 18 measuring points at specified temperature	-	8012-1576
		temperature measurement incl. certificate, 9 measuring points at specified temperature	-	8012-1555
		to increase air change rates		
	400 V option model	-	8012-1201	
		top		
	10 mm	01	8012-1265	
30 mm	01	8012-1366		
50 mm	01	8012-1382		
100 mm	01, 10	8012-1389		
	viewing window in each door, 290 x 470 mm, and 30 W interior lighting			
208 V option model	-	8012-0241		
400 V option model	-	8012-0062		
	with visual alarm (DIN 12880)	04, 12	8012-1149	

\* Notes › See last page

**ACCESSORIES**

Designation	Description	*	Art.-No.
<b>Multi Management Software</b>	Multi Management Software APT-COM™		
	version 4, BASIC edition	19	9053-0039
	version 4, GLP edition	19	9053-0042
	version 4, PROFESSIONAL edition	19	9053-0040

\* Notes › See last page

Designation	Description	*	Art.-No.
	chrome plated	-	6004-0006
	Stainless steel	-	6004-0033
	stainless steel	-	6004-0010
	concentrated, for gentle remove of residual contaminants; 1 kg	-	1002-0016
	fasteners (1 set of 4) for additional security of racks	-	8012-0531
	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 <sub>2</sub> , O <sub>2</sub> , pressure, depending on unit		
	Digital in PDF format	-	7057-0001
	Hard copy inside folder	-	7007-0001
<b>Options/Accessories</b>	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 <sub>2</sub> , O <sub>2</sub> – or pressure, depending on unit		
	Digital in PDF format	-	7057-0005
	Hard copy inside folder	-	7007-0005
	LOG ANALYZE software kit, configuration and evaluation software for all BINDER Data Logger Kits (incl. USB data cable)	19	8012-0821
	stainless steel, with fasteners (1 set of 4)	-	8012-0374
	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
	with lid made from 18/8 stainless steel, stackable, dimensions: 230 x 133 x 45 mm	-	4022-0123
	with lid made from 18/8 stainless steel, stackable, dimensions: 315 x 215 x 60 mm	-	4022-0124

\* Notes › See last page

## SERVICES

Designation	Description	*	Art.-No.
<b>Installation services</b>			
Services	Unit function instructions for operation and programming of the controller	18	DL10-0500
	Unpacking and setting up of unit, connecting to existing connections, and checking function	13, 18	DL10-0100
<b>Preventive maintenance</b>			
Services	Executive of equipment inspection according to maintenance plan	14, 18	DL20-0200
<b>Calibration services</b>			
	Expansion – including certificate, each additional measuring point in center of chamber at specified test temperature	14, 16, 17, 18	DL30-0102
	including certificate (in accordance with ASTM D5374)	14, 16, 17, 18	DL33-0000
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
<b>Validation services</b>			
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
<b>Warranty service</b>			
Services	The warranty is extended from 2 to 3 years from the delivery date, wear parts are excluded	-	DL00-5041
	The warranty is extended from 2 to 5 years from the delivery date, wear parts are excluded	-	DL00-5042

\* 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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