

# Model KBF P 720 | Constant climate chambers with ICH-compliant light source

The KBF P constant climate chamber, equipped with ICH-compliant light source, is an expert when it comes to photostability tests and ensures clear test results in accordance with ICH Guideline Q1B. At the same time, the variable-position illumination cassettes offer homogeneous lighting conditions.

## BENEFITS

- Homogeneous climate conditions thanks to APT.line™ technology
- Automatic water and wastewater management
- Pressure humidification with fast response times
- Variable position and removable illumination cassettes
- ICH-compliant illumination for long-term stable test conditions



Model 720

## MAIN FEATURES

- Temperature range: 0 °C to 70 °C
  - Temperature range with light: 10 °C to 60 °C
  - Humidity range: 10 % to 80 % RH
  - 3 positionable illumination cassettes with ICH-compliant UV/Vis light source
  - APT.line™ preheating chamber technology
  - Humidity regulation with capacitive humidity sensor and vapor humidification
  - Inner chamber made of stainless steel
  - Intuitive touchscreen controller with time-segment and real-time programming
  - Internal data logger, measured values can be read out in open format via USB
  - Unit self-test for comprehensive status analysis
- Tight-sealing inner door made of safety glass (ESG)
  - Avoidance of glass corrosion by special TIMELESS coating
  - 3 stainless steel racks
  - Access port with silicone plug, 30 mm, left
  - 4 stable castors, two with brakes
  - Class 3.1 independent temperature safety device (DIN 12880) with visual and audible temperature alarm
  - Computer interface: Ethernet
  - Door heating

## ORDERING INFORMATION

Interior volume [L]	Voltage	Option model	Version	Art.-No.
Model KBF P 720				
700	200...230 V 1~ ph 50/60 Hz	Standard	KBFP720-230V	9020-0330
	200...240 V 1~ ph 50/60 Hz	Standard	KBFP720UL-240V	9020-0331

## TECHNICAL DATA

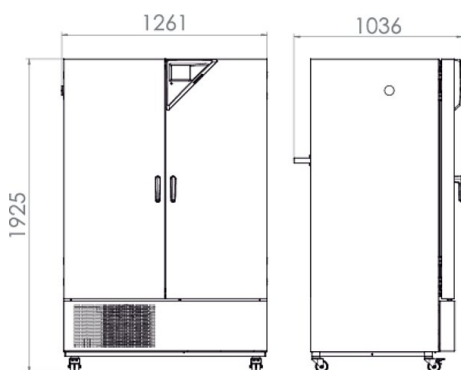
Description	KBFP720-230V <sup>1</sup>	KBFP720UL-240V <sup>1</sup>
Article Number	9020-0330	9020-0331
Performance Data Temperature		
Temperature range with 100% illumination [°C]	10...60	10...60
Temperature range without illumination cassettes [°C]	0...70	0...70
Max. heat compensation at 40 °C with illumination [W]	1000	1000
Performance Data Climate		
Temperature range with 100% illumination [°C]	20...60	20...60
Temperature range without illumination cassettes [°C]	10...70	10...70
Temperature variation with illumination at 25 °C and 60 % RH [± K]	1.2	1.2
Temperature variation with illumination at 40 °C and 75 % RH [± K]	1.2	1.2
Temperature fluctuation with illumination at 25 °C and 60 % RH [± K]	0.2	0.2
Temperature fluctuation with illumination at 40 °C and 75 % RH [± K]	0.2	0.2
Humidity range with illumination cassettes, with illumination [% RH]	10...75	10...75
Humidity range without illumination [% RH]	10...80	10...80
Humidity fluctuation with illumination at 25 °C and 60 % RH [± % RH]	2	2
Humidity fluctuation with illumination at 40 °C and 75 % RH [± % RH]	2	2
Humidity recovery time after 30 s door open at 25 °C and 60 % RH with illumination [min]	4	4
Humidity recovery time after 30 s door open at 40 °C and 75 % RH with illumination [min]	5	5
Lightdata per Illumination Cassettes		
ICH compliant illumination for photo stability testing [lx]* <sup>2</sup>	9000	9000
ICH compliant illumination for photo stability testing [W/m <sup>2</sup> ]* <sup>2</sup>	1.5	1.5
Electrical data		
Rated Voltage [V]	200...230	200...240
Power frequency [Hz]	50/60	50/60
Nominal power [kW]	3.5	3.5
Unit fuse [A]	16	16
Phase (Nominal voltage)	1~	1~
Internal Dimensions		
Depth [mm]	576	576
Height [mm]	1250	1250
Width [mm]	973	973
Housing dimensions not incl. fittings and connections		
Width net [mm]	1250	1250
Height net [mm]	1925	1925
Depth net [mm]	890	890
Measures		
Wall clearance back [mm]	100	100
Wall clearance sidewise [mm]	200	200
Interior volume [L]	700	700
Net weight of the unit (empty) [kg]	374	374
permitted load [kg]	150	150
Load per rack [kg]	45	45

- 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.
- 2 Average value, measured at 25 °C with a spherical sensor (±10 %) by 12 cm below the light cassette. The values given in W/m<sup>2</sup> refer to global radiation.

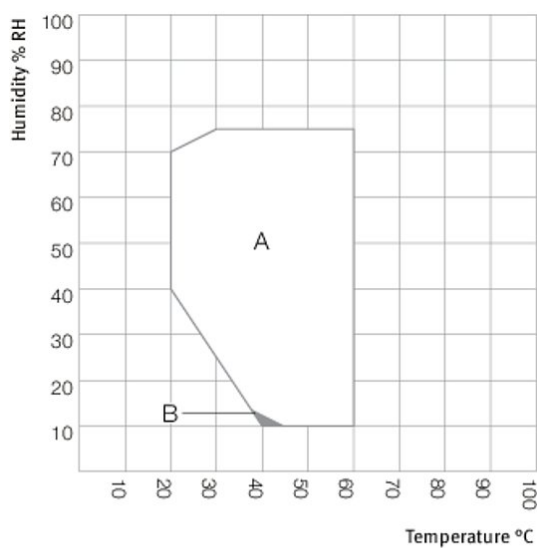
Description	KBFP720-230V <sup>1</sup>	KBFP720UL-240V <sup>1</sup>
Article Number	9020-0330	9020-0331
<b>Doors</b>		
Inner doors	2	2
Unit doors	2	2
<b>Environment-specific data</b>		
Energy consumption at 40 °C and 75 % RH [Wh/h]	1850	1850
Sound-pressure level [dB(A)]	53	53
<b>Fixtures</b>		
Number of shelves (std./max.)	3/12	3/12
Number of illumination cassettes (std./max.)	3/3	3/3

- 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.
- 2 Average value, measured at 25 °C with a spherical sensor (±10 %) by 12 cm below the light cassette. The values given in W/m<sup>2</sup> refer to global radiation.

### DIMENSIONS incl. fittings and connections [mm]



### CHARTS



A: Guaranteed condensation-free range  
B: Deviations of technical data may be possible

Climate chart

## OPTIONS AND ACCESSORIES

Designation	Description	*	Art.-No.
Access port with silicone plug	left		
	30 mm	01	8012-1444
	50 mm	01	8012-1474
	100 mm	01	8012-1341
	right		
	30 mm	01	8012-1438
	50 mm	01	8012-1468
	100 mm	01	8012-1338
	top		
	30 mm	01	8012-1450
	50 mm	01	8012-1456
	100 mm	01	8012-1462
Alarm output, zero-voltage	for temperature ( $\pm 2$ °C) and humidity ( $\pm 5$ % RH), accessible via 6-pin DIN socket (max. 24 V - 2.5 A), with audible signal that can be switched off	–	8012-1762
Analog output 4-20 mA	for temperature and humidity values (output not adjustable)	–	8012-1738
APT-COM™ 4 BASIC-Edition	for simple logging and documentation requirements with up to 5 networked units. version 4, BASIC edition	19	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	19	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	19	9053-0040
BINDER PURE AQUA SERVICE	system for preparation or complete desalination of tap water, containing single-use cartridge, hoses and measuring device	–	8012-0759
BINDER PURE AQUA SERVICE, accessories	Single-use, replacement cartridge for BINDER PURE AQUA System	–	6011-0165
Calibration certificate, expanded	for temperature and humidity; for extending the measurement in center of chamber to include another test value	–	8012-1190
Calibration certificate, temperature	temperature measurement incl. certificate and 27 measuring points at specified temperature	–	8012-1605
	temperature measurement incl. certificate, 15- 18 measuring points at specified temperature	–	8012-1585
	temperature measurement incl. certificate, 9 measuring points at specified temperature	–	8012-1564
Calibration certificate, temperature and humidity	Measurement in center of chamber at 25 °C / 60% RH or at specified test values	–	8012-1184
	temperature (according to DIN12880) and humidity measurement incl. certificate, 27 temperature measuring points and 1 humidity measuring point, at 25 °C / 60 % RH or at specified values	–	8012-1611
Class 3.3 independent temperature safety device	with visual alarm (DIN 12880)	–	8012-1754
Data Logger Kit	T 220: For continuous temperature logging from -90 °C to 220 °C. The kit includes 1 data logger, Pt 100 sensor with 2 m extension cable and 1 magnetic fixture for mounting to the BINDER unit	19	8012-0715
	TH 70/70: For continuous temperature and humidity logging from -40 °C to 70 °C / 0% to 100% RH and additional logging of ambient conditions. Kit includes 1 data logger, 2 attachable combined humidity/temperature sensors, 2 m extension cable and 1 fixture for mounting to the BINDER unit	19	8012-0717
	TH 70: For continuous temperature and humidity logging from -40 °C to 70 °C; 0% to 100% RH. Kit includes 1 data logger, Pt 100 sensor with 2 m extension cable, and 1 magnetic fixture for mounting to the BINDER unit	19	8012-0716
Data Logger Software	LOG ANALYZE software kit, configuration and evaluation software for all BINDER Data Logger Kits (incl. USB data cable)	19	8012-0821
Door lock	lockable door handle	–	8012-1662
Light photometry	including certificate, illumination and irradiance for visible light, 25 measuring points on 3 measurement levels, as well as spectral distribution (385 – 785 nm)	–	8012-1546
pH-neutral detergent	concentrated, for gentle remove of residual contaminants; 1 kg	–	1002-0016
Pt 100 temperature sensor	additional flexible Pt 100, interior, for displaying the temperature on the unit display	–	8012-1747
Rack	stainless steel	–	6004-0106
Rack accessories	fasteners (1 set of 4) for additional security of racks	–	8012-0620

\* Notes › See last page



Designation	Description	*	Art.-No.
Rack, reinforced	stainless steel, with fasteners (1 set of 4)	–	8012-0674
RS 485 / RS 422 interface converter	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
RS 485 interface, 2-wire	Additional serial interface can be used parallel to Ethernet, for Multi Management Software APT-COM™	–	8012-1743
Shelf, perforated	Stainless steel	–	8009-0486
Shelf, reinforced	positioned at bottom level, max. load 67 kg, with additional attachment for operation of shaking device, stirring device or roller bottle system	–	8012-1491
Water supply set	consisting of fresh- and waste-water containers (20 liters each), cabling and pump		
	external, free-standing	–	8012-1846
	external, consisting of fresh- and waste-water containers (20 liters each), cabling and pump		
	external, for hanging from the back of the device	–	8012-0643

\* Notes › See last page

## SERVICES

Designation	Description	*	Art.-No.
<b>Installation services</b>			
Installation	and set up of unit at operating location, connect to existing connections	13, 18	DL10-0300
Instruction	unit function instructions for operation and programming of the controller	18	DL10-0700
<b>Preventive maintenance</b>			
Preventive maintenance	Executive of equipment inspection according to maintenance plan	14, 18	DL20-0400
<b>Calibration services</b>			
Calibration temperature and humidity	including certificate, one measuring point in center of chamber at 25 °C / 60 % RH or at specified values	14, 16, 17, 18	DL30-0301
Light photometry	including certificate, 25 measuring points on 3 measurement levels, intensity measurements for visible light and UVA, as well as spectral distribution (qualitative spectral measurements 250 – 785 nm)	14, 16, 17, 18	DL30-0525
Temperature and humidity measurement according to DIN12880	including certificate (27 temperature measuring points and one humidity measuring point, at 25 °C / 60 % RH or at specified values)	14, 16, 17, 18	DL30-0427
Temperature measurement 18 temperature measuring points and 1 humidity measuring point	including certificate, 18 temperature measuring points and 1 humidity measuring point in center of chamber, at 25 °C / 60 % RH or at specified values	14, 16, 17, 18	DL30-0318
Temperature measurement 27 temperature measuring points and 1 humidity measuring point	including certificate, 27 temperature measuring points and 1 humidity measuring point in center of chamber, at 25 °C / 60 % RH or at specified values	14, 16, 17, 18	DL30-0327
Temperature measurement 9 temperature measuring points and 1 humidity measuring point	including certificate, 9 temperature measuring points and 1 humidity measuring point in center of chamber, at 25 °C / 60 % RH or at specified values	14, 16, 17, 18	DL30-0309
<b>Validation services</b>			
Execution of IQ/OQ incl. light measurement	including light measurement, in accordance with qualification folder	15, 18, 20	DL43-0400
Execution of IQ/OQ/PQ	in accordance with customer's requirement, price: on request	15, 18	DL44-0500
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	8012-0868
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	8012-0956
<b>Warranty service</b>			
Extension of the warranty from 2 to 3 years	beginning with the date of delivery, wearing parts are not included	–	DL01-5041
Extension of the warranty from 2 to 5 years	beginning with the date of delivery, wearing parts are not included	–	DL01-5042

\* Notes › See last page



# WolfLabs

**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.

**[www.wolflabs.co.uk](http://www.wolflabs.co.uk)**

**Tel : 01759 301142**

**Fax : 01759 301143**

**[sales@wolflabs.co.uk](mailto:sales@wolflabs.co.uk)**

Please contact us if this literature doesn't answer all your questions.