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

The KBFP 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**

- Safe thanks to climatic homogeneity that far exceeds the accuracy required by ICH guidelines, even with a fully loaded unit. The light spectrum is 100% compliant with ICH requirements.
- Reliable thanks to failsafe operation without compromise. The interior and Longlife evaporator plate are made entirely from stainless steel.
- Smart, as a wide range of accessories makes it highly compatible for adaptation to specific customer requirements.
- Economical thanks to maximum effective volume which allows for 30% larger load compared to the competition.



Model 720

#### **MAIN FEATURES**

- Temperature range: o °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
- BINDER Multi Management Software APT-COM™ Basic Edition
- 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	ArtNo.
	200230 V 1~ ph 50/60 Hz	Standard		9020-0330
700	200240 V 1~ ph 50/60 Hz	Standard		9020-0331

#### **TECHNICAL DATA**

The present and a probe of the probability and a properties of the probability and a probability and	Description	KBFP720-230V1	KBFP720UL-240V <sup>1</sup>
Temperature range with 100%   Illumination (PC)	Article Number	9020-0330	9020-0331
Temperature range without   Illumination   Illumination   IV   100   1	Performance Data Temperature		
Max. heat compensation at 4 o "C with illumination [N]         100         100           Performance Data Climate         Verify the Compensation of the 100 Millumination of 120 Millumination assettes [N]         20.60         20.60           Temperature range with both Illumination at 25 N C and 60 % RM [k K]         10.70         10.70           Temperature variation with Illumination at 25 N C and 60 % RM [k K]         1.2         1.2           Temperature fluctuation with Illumination at 25 N C and 60 % RM [k K]         0.2         0.2           Temperature fluctuation with Illumination at 40 N C and 75 % RM [k K]         10.75         10.75           Unmility range without Illumination at 25 N C and 60 % RM [k K]         10.80         10.80           Unmility range without Illumination at 40 N C and 75 % RM [k K]         2         2           Unmility Inducation with Illumination at 40 N C and 75 % RM [k K]         2         2           Unmility Inducation with Illumination at 40 N C and 75 % RM [k K]         2         2           Unmility Inducation with Illumination at 40 N C and 75 % RM [k K]         2         2           Unmility Inducation with Illumination at 40 N C and 75 % RM [k K]         2         2           Unmility Inducation with Illumination at 40 N C and 75 % RM [k K]         2         2           Unmility Inducation with Illumination at 25 N C and 60 % RM with Illumination at 25 N C and 60 % RM wi	Temperature range with 100% illumination [°C]	1060	1060
Performance Data Climate         Performance Performance With 100% lithiunisation [**]         2060         2060           Temperature range with 100% lithiunisation cassettes [**]         1070         1.2           Temperature variation with illumination at 20°C and 60 % RH [x K]         1.2         1.2           Temperature fluctuation with illumination at 20°C and 60 % RH [x K]         0.2         0.2           Temperature fluctuation with illumination at 20°C and 60 % RH [x K]         0.2         1075           Hundilty range with illumination at 20°C and 50 % RH [x K]         1080         1080           Hundilty range with illumination 22°C and 60 % RH [x K]         2         2           Hundilty fluctuation with illumination 22°C and 60 % RH [x K]         2         2           Hundilty fluctuation with illumination 22°C and 60 % RH [x K]         2         2           Hundilty fluctuation with illumination 22°C and 60 % RH [x K]         2         2           Hundilty fluctuation with illumination 22°C and 60 % RH [x K]         2         2           Hundilty fluctuation with illumination 22°C and 60 % RH [x K]         2         2           Hundilty fluctuation with illumination (x K)         2         2           Recovery time after 30 seconds door open at 20°C and 57 % RH [x K]         3         5           CK Compilant Illumination (x K)         3 </td <td>Temperature range without illumination cassettes [°C]</td> <td>070</td> <td>070</td>	Temperature range without illumination cassettes [°C]	070	070
Temperature range with 100% illumination cassettes PCI         1070         1070           Temperature variation with illumination assettes PCI         1.2         1.2           Temperature variation with illumination at 2 PC and 60 % RH [x]         1.2         1.2           Temperature fluctuation with illumination at 2 PC and 60 % RH [x]         0.2         0.2           Temperature fluctuation with illumination at 2 PC and 60 % RH [x]         1080         1080           Hundidity range without illumination at 2 PC and 60 % RH [x] MR I         2.0         2.0           Hundidity range without illumination at 2 PC and 60 % RH [x] MR I         2.0         2.0           Hundidity range without illumination at 2 PC and 60 % RH [x] MR II         2.0         2.0           Hundidity range without illumination at 2 PC and 60 % RH [x] MR II         2.0         2.0           Recovery time after 30 seconds door open at 2 PC and 60 % RH [x] MR II         2.0         2.0           Recovery time after 30 seconds door open at 2 PC and 60 % RH with illumination at 1 PC and 50 % RH with illumination at 1 PC and 50 % RH with illumination at 2 PC and 60 % RH with illumination at 2 PC and 60 % RH with illumination at 2 PC and 60 % RH [x] MR II         2.0         2.0           Recovery time after 30 seconds door open at 2 PC and 60 % RH [x] MR II         5.0         5.0         5.0           Recovery time after 30 seconds door open at 2 PC and 50 % RH with illumination at	Max. heat compensation at 40 °C with illumination [W]	1000	1000
Temperature range without illumination at asy "Cand 66 % RH [s X]         1.2         1.2           Temperature variation with illumination at asy "Cand 66 % RH [s X]         0.2         1.2           Temperature fluctuation with illumination at asy "Cand 66 % RH [s X]         0.2         0.2           Temperature fluctuation with illumination at asy "Cand 66 % RH [s X]         0.2         0.2           Temperature fluctuation with illumination at asy "Cand 66 % RH [s X]         0.2         0.2           Humidity range with illumination assetses, with illumination [x RH]         10.80         10.80           Humidity fluctuation with illumination assetses, with illumination [x RH]         2         2           Humidity fluctuation with illumination assetses (x RH [s X RH])         2         2           Humidity fluctuation with illumination assetses (x RH [s X RH])         2         2           Recovery time after 30 seconds door open at 25° Cand 60 % RH with illumination assetses (x RH [s X RH])         3         3           Recovery time after 30 seconds door open at 25° Cand 60 % RH with illumination for photo stability testing [klr²         900         900           CH compliant illumination for photo stability testing [klr²         900         900           CH compliant illumination for photo stability testing [klr²         900         900           Return time krape (x klr)         900         900	Performance Data Climate		
Remperature variation with illumination at 25°C and 60 % RH [a K]         1.2         1.2           Temperature variation with illumination at 25°C and 60 % RH [a K]         0.2         0.2           Temperature fluctuation with illumination at 25°C and 60 % RH [a K]         0.2         0.2           Humidity range with illumination at 25°C and 60 % RH [a K]         10.80         10.80           Humidity range with illumination at 30°C and 55 % RH [a K]         2         2           Humidity fluctuation with illumination at 30°C and 55 % RH [a K]         2         2           Humidity fluctuation with illumination at 30°C and 55 % RH [a K]         2         2           Recovery time after 30 seconds door open at 25°C and 60 % RH with illumination and 10 % C and 75 % RH with illumination and 10 % C and	Temperature range with 100% illumination [°C]	2060	2060
Temperature variation with illumination at a o "C and 75 % RH [s K]         0.2         0.2           Temperature fluctuation with illumination at a o "C and 75 % RH [s K]         0.2         0.2           Temperature fluctuation with illumination at a o "C and 75 % RH [s K]         0.2         0.2           Humidity range with illumination (3 kH)         1080         1080           Humidity Inductation with illumination at a co"C and 6 % RH [s KH]         2         2           Humidity Inductation with illumination at a co"C and 75 % RH [s KH]         2         2           Recovery time after 30 seconds door open at 25 "C and 60 % RH with illumination in minimation at a co"C and 75 % RH with illumination in minimation for photo stability testing [k]."         5         5           Recovery time after 30 seconds door open at 25 "C and 60 % RH with illumination in minimation for photo stability testing [k]."         9000         900           Recovery time after 30 seconds door open at 25 "C and 60 % RH with illumination in minimation for photo stability testing [k]."         9000         900           Recovery time after 30 seconds door open at 25 "C and 60 % RH with illumination in minimation for photo stability testing [k]."         9000         900           CH compliant illumination for photo stability testing [k]."         9000         900         900           CH compliant illumination for photo stability testing [k]."         906         906         906	Temperature range without illumination cassettes [°C]	1070	1070
Remperature fluctuation with illumination at 25°C and 60 % RH [x K]         0.2         0.2           Itemperature fluctuation with illumination at 25°C and 60 % RH [x K]         0.2         0.2           Humidity range with illumination cassettes, with illumination [% RH]         1080         1080           Humidity fluctuation with illumination at 25°C and 60 % RH [x K RH]         2         2           Humidity fluctuation with illumination at 25°C and 60 % RH [x K RH]         2         2           Recovery time after 30 seconds door open at 25°C and 60 % RH with illumination in min i	Temperature variation with illumination at 25 °C and 60 % RH [± K]	1.2	1.2
Remperature fluctuation with illumination at 4 o °C and 75 % RH [c K]         0.2         0.2           Humidity range with illumination cassettes, with illumination [°R RH]         1080         1050           Humidity range without illumination at 25 °C and 60 % RH [c % RH]         2         2           Humidity fluctuation with illumination at 25 °C and 60 % RH with illumination at 26 °C and 75 % RH [c % RH]         2         2           Recovery time after 30 seconds door open at 25 °C and 60 % RH with illumination at 10 °C and 75 % RH with illumination at 10 °C and 75 % RH with illumination at 10 °C and 75 % RH with illumination at 10 °C and 75 % RH with illumination at 10 °C and 75 % RH with illumination at 10 °C and 75 % RH with illumination at 10 °C and 75 % RH with illumination at 10 °C and 75 % RH with illumination at 10 °C and 75 % RH with illumination at 10 °C and 75 % RH with illumination at 10 °C and 75 % RH with illumination at 10 °C and 75 % RH with illumination at 10 °C and 75 % RH with illumination at 10 °C and 75 % RH with illumination at 10 °C and 75 % RH with illumination at 10 °C and 75 % RH with illumination at 10 °C and 75 % RH with illumination at 10 °C and 75 °C and 60 °C and 75	Temperature variation with illumination at 40 °C and 75 % RH [± K]	1.2	1.2
Humidity range with illumination (% RH)         1075         1075           Humidity fractuation with illumination (% RH)         1080         1080           Humidity fluctuation with illumination at 20°C and 60 % RH [a % RH)         2         2           Recovery time after 30 seconds door open at 20°C and 60 % RH with illumination [min]         2         2           Recovery time after 30 seconds door open at 20°C and 60 % RH with illumination [min]         3         3           Recovery time after 30 seconds door open at 20°C and 60 % RH with illumination [min]         9000         9000           Recovery time after 30 seconds door open at 20°C and 60 % RH with illumination [min]         9000         9000           CH compliant illumination Cassettes         9000         9000           CH compliant illumination for photo stability testing [k]*2         9000         9000           CH compliant illumination for photo stability testing [k]*2         1000         9000         9000           CH compliant illumination for photo stability testing [k]*2         1000         9000         9000           CH compliant illumination for photo stability testing [k]*2         1000         9000         9000           CH compliant illumination for photo stability testing [k]*2         9000         9000         9000           CH compliant illumination for photo stability testing [k]*3	Temperature fluctuation with illumination at 25 °C and 60 % RH [± K]	0.2	0.2
Humidity range without illumination   % RH	Temperature fluctuation with illumination at 40 °C and 75 % RH [± K]	0.2	0.2
Humidity fluctuation with illumination at 25 °C and 60 °K RH [2 °K RH]   2   2   2	Humidity range with illumination cassettes, with illumination [% RH]	1075	1075
Humidity fluctuation with illumination at 40 °C and 75 % RH [± % RH]   2   2   2   2   2   2   2   2   2	Humidity range without illumination [% RH]	1080	1080
Recovery time after 30 seconds door open at 25 °C and 60 °K RH with illumination [min]         4         4           Recovery time after 30 seconds door open at 40 °C and 75 °K RH with illumination [min]         5         5           Lightdata per Illumination Cassettes         S         5           CH compliant illumination for photo stability testing [W/m²]*²         9000         9000           CH compliant illumination for photo stability testing [W/m²]*²         1.5         1.5           Electrical data         S         200240           Power frequency [Hz]         50/60         90/60           Nominal power [kW]         3.5         3.5           Unit fuse [A]         16         16           Phase (Nominal voltage)         1-         1-           Weavers         3.7         700           Measures         374         374           Interior volume [L]         700         700           New weight of the unit (empty) [kg]         374         374           Power titled load [kg]         150         150           Load per rack [kg]         45         45           Wall clearance back [mm]         100         100           Wall clearance sidewise [mm]         973         973           Interior vheight [mm]	Humidity fluctuation with illumination at 25 °C and 60 % RH [± % RH]	2	2
Min	Humidity fluctuation with illumination at 40 °C and 75 % RH [± % RH]	2	2
	Recovery time after 30 seconds door open at 25 °C and 60 % RH with illumination [min]	4	4
Ch compliant illumination for photo stability testing [lx]***         9000         9000           Ch compliant illumination for photo stability testing [lx]***         1.5         1.5           Electrical data         Rated Voltage [V]         200230         200240           Power frequency [Hz]         50/60         50/60           Nominal power [kW]         3.5         3.5           Unit fuse [A]         16         16           Phase (Nominal voltage)         1°         1°           Measures         1         700         700           Net weight of the unit (empty) [kg]         374         374           Permitted load [kg]         150         150           uoal per rack [kg]         45         45           wall clearance back [mm]         100         100           wall clearance sidewise [mm]         200         200           Interior width [mm]         973         973           Interior leight [mm]         576         576           Doors	Recovery time after 30 seconds door open at 40 °C and 75 % RH with illumination [min]	5	5
1.5   1.5	Lightdata per Illumination Cassettes		
Electrical data         Electrical data           Rated Voltage [V]         200230         200240           Power frequency [Hz]         50/60         50/60           Nominal power [kW]         3.5         3.5           Unit fuse [A]         16         16           Phase (Nominal voltage)         1~         70           Measures         700         700           Net weight of the unit (empty) [kg]         374         374           Permitted load [kg]         150         150           Load per rack [kg]         45         45           Wall clearance back [mm]         100         100           Wall clearance sidewise [mm]         200         200           Interior width [mm]         973         973           Interior height [mm]         1250         1250           Doors         576         200	ICH compliant illumination for photo stability testing [lx]*2	9000	9000
Reted Voltage [V]         200230         200240           Power frequency [Hz]         50/60         50/60           Nominal power [kW]         3.5         3.5           Unit fuse [A]         16         16           Phase (Nominal voltage)         1~         2           Measures          700         700           Net weight of the unit (empty) [kg]         374         374         374           Permitted load [kg]         150         150         150         150           Load per rack [kg]         45         45         45         45           Wall clearance back [mm]         100	ICH compliant illumination for photo stability testing [W/m²]*2	1.5	1.5
Power frequency [Hz]         50/60         50/60           Nominal power [kW]         3.5         3.5           Unit fuse [A]         16         16           Phase (Nominal voltage)         1~         1           Measures         Vermitted (Improving [L])         700         700           Net weight of the unit (empty) [kg]         374         374           Permitted load [kg]         150         150           Load per rack [kg]         45         45           Wall clearance back [mm]         100         100           Wall clearance sidewise [mm]         200         200           Interior width [mm]         973         973           Interior height [mm]         1250         1250           Interior depth [mm]         576         576           Doors           Interior doors         2         2	Electrical data		
Nominal power [kW] 3.5 3.5  Unit fuse [A] 16 16  Phase (Nominal voltage) 1~ 1~  Measures  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  Wall clearance back [mm] 100 100  Wall clearance sidewise [mm] 200 200  Interior width [mm] 973 973  Interior width [mm] 1250 1250  Interior height [mm] 1250 576  Doors  Interior doors 2 2 2	Rated Voltage [V]	200230	200240
Duit fuse [A]   16   16   16   18   18   18   18   18	Power frequency [Hz]	50/60	50/60
Phase (Nominal voltage)         1~         1-           Measures         700         700           Net weight of the unit (empty) [kg]         374         374           Permitted load [kg]         150         150           Load per rack [kg]         45         45           Wall clearance back [mm]         100         100           Wall clearance sidewise [mm]         200         200           Interior width [mm]         973         973           Interior height [mm]         1250         1250           Interior depth [mm]         576         576           Doors         2         2	Nominal power [kW]	3.5	3.5
Measures         700         700           Net weight of the unit (empty) [kg]         374         374           Permitted load [kg]         150         150           Load per rack [kg]         45         45           Wall clearance back [mm]         100         100           Wall clearance sidewise [mm]         200         200           Internal Dimensions         973         973           Interior width [mm]         1250         1250           Interior depth [mm]         576         576           Doors         2         2	Unit fuse [A]	16	16
Net weight of the unit (empty) [kg]   374   37	Phase (Nominal voltage)	1~	1~
Net weight of the unit (empty) [kg] 374 374  Permitted load [kg] 150 150  Load per rack [kg] 45 45  Wall clearance back [mm] 100 100  Wall clearance sidewise [mm] 200 200  Internal Dimensions  Interior width [mm] 973 973  Interior height [mm] 1250 1250  Interior depth [mm] 576 576  Doors  Interior doors 2 2 2	Measures		
Permitted load [kg]       150       150         Load per rack [kg]       45       45         Wall clearance back [mm]       100       100         Wall clearance sidewise [mm]       200       200         Interior bimensions       973       973         Interior height [mm]       1250       1250         Interior depth [mm]       576       576         Doors       2       2	Interior volume [L]	700	700
Load per rack [kg] 45 45  Wall clearance back [mm] 100 100  Wall clearance sidewise [mm] 200 200  Internal Dimensions Interior width [mm] 973 973  Interior height [mm] 1250 1250  Interior depth [mm] 576 576  Doors  Inner doors 2 2 2	Net weight of the unit (empty) [kg]	374	374
Wall clearance back [mm]       100       100         Wall clearance sidewise [mm]       200       200         Internal Dimensions       973       973         Interior width [mm]       1250       1250         Interior depth [mm]       576       576         Doors       2       2	Permitted load [kg]	150	150
Wall clearance sidewise [mm]       200       200         Internal Dimensions       973       973         Interior height [mm]       1250       1250         Interior depth [mm]       576       576         Doors       2       2	Load per rack [kg]	45	45
Internal Dimensions	Wall clearance back [mm]	100	100
Interior width [mm]   973	Wall clearance sidewise [mm]	200	200
Interior height [mm]     1250     1250       Interior depth [mm]     576     576       Doors     2     2	Internal Dimensions		
Interior depth [mm] 576 576  Doors Inner doors 2 2	Interior width [mm]	973	973
Doors 2 2	Interior height [mm]	1250	1250
Inner doors 2 2	Interior depth [mm]	576	576
	Doors		
Jnit doors 2 2	Inner doors	2	2
	Unit doors	2	2

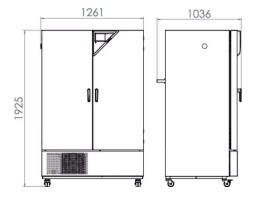
<sup>1</sup> All technical data is specified for unloaded units with standard equipment at an ambient temperature of +22 °C ±3 °C and a power supply voltage fluctuation of ±10 %. The temperature data is determined in accordance to BINDER factory standard following DIN 12880, observing the recommended 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.

<sup>2</sup> Average value, measured at 25 °C with a spherical sensor (±10 %) by 12 cm below the light cassette. The values given in W/m2 refer to global radiation.

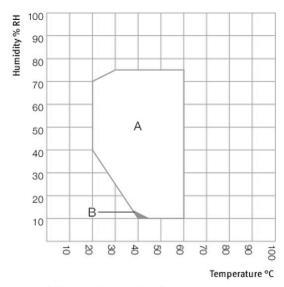
Description	KBFP720-230V1	KBFP720UL-240V <sup>1</sup>
Article Number	9020-0330	9020-0331
Housing dimensions not incl. fittings and connections		
Width net [mm]	1250	1250
Height net [mm]	1925	1925
Depth net [mm]	890	890
Environment-specific data		
Energy consumption at 40 °C and 75 % RH [Wh/h]	1850	1850
Sound-pressure level [dB(A)]	53	53
Fixtures		
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/m2 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**

Designation	Description	*	ArtNo.
	left		
	30 mm	01	8012-1444
	50 mm	01	8012-1474
	100 mm	01	8012-1341
	right		
Access port with silicone	30 mm	01	8012-1438
olug	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
Calibration certificate, expanded	for temperature and humidity; for extending the measurement in center of chamber to include another test value	-	8012-1190
	temperature measurement incl. certificate and 27 measuring points at specified temperature	-	8012-1605
Calibration certificate, emperature	temperature measurement incl. certificate, 15- 18 measuring points at specified temperature	-	8012-1585
, p	temperature measurement incl. certificate, 9 measuring points at specified temperature	-	8012-1564
Calibration certificate,	Measurement in center of chamber at 25 °C / 60% RH or at specified test values	-	8012-1184
emperature and numidity	temperature (according to DIN1288o) and humidity measurement incl. certificate, 27 temperature measuring points and 1 humidity measuring point, at 25 $^{\circ}$ C / 60 $^{\circ}$ RH or at specified values	-	8012-1611
Class 3.3 independent emperature safety device	with visual alarm (DIN 12880)	-	8012-1754
Door lock	lockable door handle	-	8012-1662
ight photometry	including certificate, illumination and irradiance for visible light, 25 measuring points on 3 measurement levels, as well as spectral distribution $(385 - 785 \text{ nm})$	-	8012-1546
Pt 100 temperature sensor	additional flexible Pt 100, interior, for displaying the temperature on the unit display	-	8012-1747
RS 485 interface, 2-wire	Additional serial interface can be used parallel to Ethernet, for Multi Management Software APT-COM™	-	8012-1743
Shelf, reinforced	positioned at bottom level, max. load 45 kg, with additional attachment for operation of shaking device, stirring device or roller bottle system	-	8012-1491
Notes > See last page			

<sup>\*</sup> Notes > See last page

## **ACCESSORIES**

Designation	Description	*	ArtNo.
APT-COM™ 4 BASIC-	for simple logging and documentation requirements with up to 5 networked units.		
Edition	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.		
Edition	version 4, GLP edition	-	9053-0042
APT-COM™ 4	convenient unit and user management built on the BASIC edition. Suitable for networking up to 100 units.		
PROFESSIONAL-Edition	version 4, PROFESSIONAL edition	-	9053-0040
BINDER PURE AQUA SERVICE	System for preparation or complete desalination of tap water, complete set containing PURE AQUA 300 single-use cartridge, measuring device, and all necessary connecting parts	_	8012-0759
BINDER PURE AQUA SERVICE, accessories	Single-use, replacement cartridge for BINDER PURE AQUA System	=	6011-0165
pH-neutral detergent	concentrated, for gentle remove of residual contaminants; 1 kg	_	8012-2250

<sup>\*</sup> Notes > See last page

Designation	Description	*	ArtNo.
	IQ/OQ documents – supporting documents for validation performed by customers, consisting of: IQ/OQ checklists incl. calibration guide and comprehensive unit documentation; parameters: temperature, humidity, and light values		
	Digital in PDF format	-	7057-0003
Oualification documents	Hard copy inside folder	-	7007-0003
Qualification documents	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, humidity, and light values		
	Digital in PDF format	-	7057-0007
	Hard copy inside folder	-	7007-0007
Rack	stainless steel	-	8012-2051
Rack accessories	fasteners (1 set of 4) for additional security of racks	-	8012-2280
Rack, reinforced	stainless steel, with fasteners (1 set of 4)	-	8012-0674
	RS 422 cable set and RS 485 / RS 422 interface converter for connection to 10-way plug distributor		
RS 485 / RS 422 interface converter	115 V option model	-	8012-0599
	230 V option model	-	8012-0589
Shelf, perforated	Stainless steel	-	8012-2252
	consisting of fresh- and waste-water containers (20 liters each), cabling and pump		
Water supply set	external, for hanging from the back of the device	-	8012-0643
	external, free-standing	-	8012-1846
WLAN kit	The kit contains a client bridge that establishes a wireless connection between BINDER units and APT-COM4, LIMS, or customer-specific software via an Ethernet interface. It provides an alternative solution in situations where units need to be positioned in locations without an on-site Ethernet connection. In secured networks, installation and configuration must be performed by the customer's IT service.	-	8012-2262

<sup>\*</sup> Notes > See last page

## **SERVICES**

Designation	Description	*	ArtNo.
Maintenance contracts			
Installation services			
Maintenance services			
Calibration services			
Validation services			
Warranty service			
1-year warranty extension	The warranty is extended by 1 year from the delivery date, wear parts are excluded	_	DL50-0030
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	05	DL20-0710
Execution of IQ/OQ incl. light photometry	Execution of IQ/OQ including light photometry in accordance with qualification folder	05	DL43-0400
Execution of IQ/OQ/PQ	Execution of IQ/OQ/PQ in accordance with qualification folder	05	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 temperature/humidity/pressure value, including certificate	05	DL20-0930
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)	03, 04, 05	DL30-0525
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	05	DL20-0400
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	05	DL20-0820
Temperature and humidity calibration	Expansion –Temperature and humidity calibration with 1 measuring point in center of chamber with 1 specified pair of values, including certificate	03, 04, 05	DL30-0302
	Temperature and humidity calibration with 1 measuring point in center of chamber with 1 specified pair of values, including certificate	03, 04, 05	DL30-0301
Temperature and humidity neasurement according to DIN12880	Temperature measurement in accordance with DIN 12880 with 27 temperature measuring points and 1 humidity measuring point in center of chamber with a pair of values specified by the user, including certificate	03, 04, 05	DL30-0427
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<sup>\*</sup> Notes > See last page

## Data Sheet Model KBF P 720

Designation	Description	*	ArtNo.
Temperature and humidity measurement, 18-1 measuring points	Temperature measurement with 18 temperature measuring points and 1 humidity measuring point in center of chamber with a pair of values specified by the user, including certificate	03, 04, 05	DL30-0318
Temperature and humidity measurement, 27-1 measuring points	Temperature measurement with 27 temperature measuring points and 1 humidity measuring point in center of chamber with a pair of values specified by the user, including certificate	03, 04, 05	DL30-0327
Temperature and humidity measurement, 9-1 measuring points	Temperature measurement with 9 temperature measuring points and 1 humidity measuring point in center of chamber with a pair of values specified by the user, including certificate	03, 04, 05	DL30-0309
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)	05	DL10-0300
Unit instructions	Instruction regarding operating principle and basic functions of the unit, operation of the control electronics including programming	05	DL10-0700

<sup>\*</sup> Notes > See last page

#### **NOTES**

- Condensation may occur in the area around the access port. Access ports may be placed in custom locations for an additional charge. UL mark is not granted when this option is used.
- 02
- Sensor calibration is performed in an accredited calibration laboratory. 03
- Calibration is performed according to the BINDER factory standard.
- 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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