BINDER
Best conditions for your success

Constant climate chambers







Always the right climate

KBF| KBF P| KBF LQC| KMF series

EN

Humidity test chambers

Series KBF	Page 6
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BINDER humidity test chambers stand out when testing material behaviors under constant temperature and humidity conditions. A humidity test chamber of the KBF P and KBF LQC Series also offers ICH-compliant illumination for standard-compliant long-term tests. In combination with the innovative Light Quantum Control (LQC), they offer a complete reliable solution for photostability testing in one chamber.
Wide temperature and humidity ranges can be achieved with KMF Series chambers—ideal for complex stress tests at, for instance, 85 °C and 85 % RH.

PRODUCT SELECTION CONSTANT CLIMATE CHAMBERS

Features	KBF › Page 6	KBF P › Page 9	KBF LQC › Page 12	KMF › Page 15
Model				
Model 115	•	–	–	•
Model 240	•	•	•	•
Model 720	•	•	•	•
Model 1020	•	–	–	–
General data				
Temperature range [°C]	0…70	–	–	-10…100
Temperature range without illumination cassettes [°C]	–	0…70	0…70	–
Temperature range with 100% illumination [°C]	–	10…60	10…60	–
Humidity range [% RH]	10…80	10…80	10…80	10…98
Ethernet interface	•	•	•	•
USB interface	•	•	•	•
Forced convection	•	•	•	•
Controller and timer functions				
Controller display		TFT touch		
Ramp function	•	–	–	•
Time delayed ON	•	–	–	•
Programming option	•	•	•	•
Weekly program function	•	•	•	•
Adjustable fan speed	•	•	•	•
Real-time clock	•	•	•	•
Class 3.1 independent temperature safety device	•	•	•	•
Temperature alarm, acoustic	•	•	•	•
Temperature alarm, visual	•	•	•	•

•Standard equipment

ADVANTAGES AT A GLANCE



HOMOGENEOUS TEMPERATURE DISTRIBUTION

Series KBF, KBF P, KBF LQC, KMF

BINDER APT.line™ preheating chamber technology ensures long-term operational stability even under full load.



INTUITIVE TOUCHSCREEN CONTROLLER

Series KBF, KBF P, KBF LQC, KMF

State-of-the-art controller technology with time-segment and real-time programming with internal data recording.



HOMOGENEOUS LIGHT DISTRIBUTION

Series KBF P, KBF LQC

Illumination cassettes with ICH-Q1B-compliant light sources provide flexible placement for photostability tests.



FLEXIBLE WATER AND WASTE WATER MANAGEMENT AT ANY LOCATION

Series KBF, KBF P, KMF

Using the connection to the domestic water supply or an optional external water supply set (Fig.).

Series KBF | with large temperature / humidity range

The BINDER KBF is the specialist for unconditionally reliable stability testing and precise maintenance of constant climate conditions. From programming to documentation, this humidity test chamber meets all critical requirements.



KBF 240 model

MAIN FEATURES

- Temperature range: 0 °C to 70 °C
- Humidity range: 10 % to 80 % RH
- 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 with internal data recording
- Tight-sealing inner door made of safety glass (ESG) with special TIMELESS coating
- 2 stainless steel racks
- Access port with silicone plug, 30 mm, left
- 4 stable castors, two with brakes, from 240 liters

AVAILABLE SIZES

Model	Interior volume [cu.ft.]	Online data sheets
KBF 115	3.6	› go2binder.com/en-KBF115
KBF 240	8.7	› go2binder.com/en-KBF240
KBF 720	24.7	› go2binder.com/en-KBF720
KBF 1020	36	› go2binder.com/en-KBF1020

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Find all details online
go2binder.com/en-KBF

TECHNICAL DATA

Description	KBF 115	KBF 240	KBF 720	KBF 1020
Housing dimensions not incl. fittings and connections				
Width net [mm]	880	925	1250	1250
Height net [mm]	1050	1460	1925	1925
Depth net [mm]	650	800	890	1145
Internal Dimensions				
Width [mm]	600	650	973	976
Height [mm]	483	785	1250	1250
Depth [mm]	351	485	576	836
Measures				
Interior volume [L]	102	247	700	1020
Net weight of the unit (empty) [kg]	129	184	309	365
permitted load [kg]	100	100	150	150
Load per rack [kg]	30	30	45	45
Performance Data Temperature				
Temperature range [°C]	0...70	0...70	0...70	0...70
Temperature variation at 40 °C [± K]	0.2	0.3	0.2	0.2
Temperature fluctuation [± K]	0.1	0.1	0.1	0.5
Performance Data Climate				
Temperature range [°C]	10...70	10...70	10...70	10...70
Temperature variation at 40 °C and 75 % RH [± K]	0.2	0.3	0.2	0.2
Temperature fluctuation at 40 °C and 75 % RH [± K]	0.1	0.1	0.1	0.1
Humidity range [% RH]	10...80	10...80	10...80	10...80
Humidity fluctuation at 40 °C and 75 % RH [± % RH]	≤2	1,5	1,5	1,5
Electrical data				
Nominal power (version 230 V) [kW]	2	2.1	3.1	3.1
Nominal power (version 240 V) [kW]	2	2.1	3.1	3.1
Fixtures				
Number of shelves (std./max.)	2/5	2/9	2/15	2/15

ORDERING INFORMATION [Art. No.]

Further details: Go to www.binder-world.com › Search › Enter Article Number

Voltage	Option model	KBF 115	KBF 240	KBF 720	KBF 1020
200...230 V 1 50/60 Hz	Standard	9020-0320	9020-0322	9020-0324	9020-0326
200...240 V 1 50/60 Hz	Standard	9020-0321	9020-0323	9020-0325	9020-0327

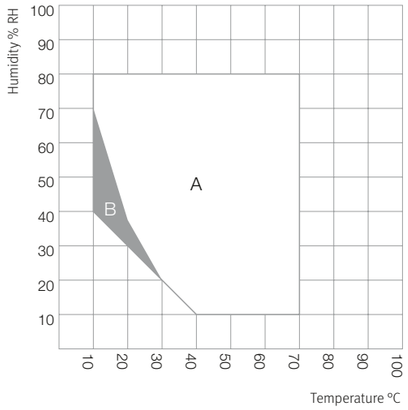
▸ You will find a selction of options, accessories and services suitable for each product on page 18

EXTRACT OF FULLFILLED STANDARDS

- ICH Q1A(R2)

TEMPERATURE-HUMIDITY CHART

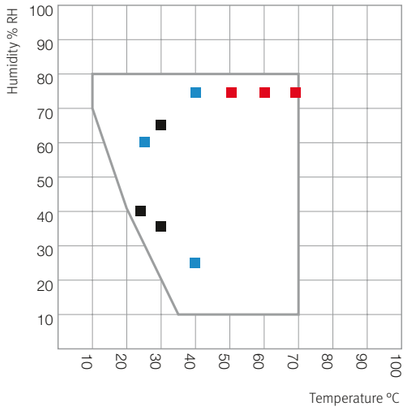
KBF 115, KBF 240, KBF 720, KBF 1020



A: Guaranteed condensation-free range
B: Time-limited operation (max. 24 hours)

TEMPERATURE-HUMIDITY CHART WITH ICH CHECKPOINTS

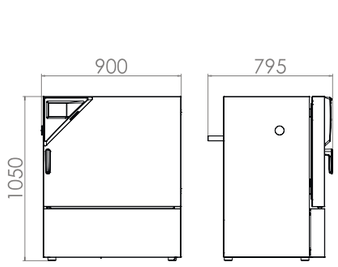
KBF 115, KBF 240, KBF 720, KBF 1020



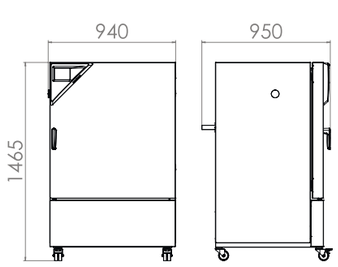
- Long term testing (ICH Q1A)
- Accelerated testing (ICH Q1A)
- Stress testing (ICH Q1A)

DIMENSIONS incl. fittings and connections [mm]

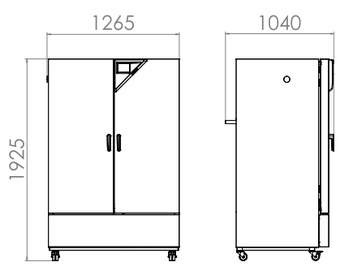
KBF 115



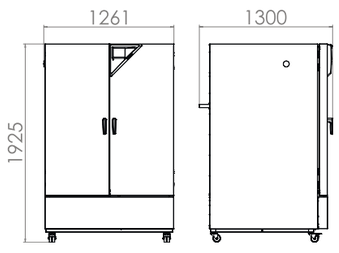
KBF 240



KBF 720



KBF 1020



Series KBF P | 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 illuminati-on cassettes offer homogeneous lighting conditions.





KBF P 240 model

MAIN FEATURES

- Temperature range: 0 °C to 70 °C
- Temperature range with light: 10 °C to 60 °C
- Humidity range: 10 % to 80 % RH
- 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 with internal data recording
- Tight-sealing inner door made of safety glass (ESG) with special TIMELESS coating
- stainless steel racks

AVAILABLE SIZES

Model	Interior volume [L]	Online data sheets
KBF P 240	247	› go2binder.com/en-KBFP240
KBF P 720	700	› go2binder.com/en-KBFP720

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Find all details online
go2binder.com/en-KBFP

TECHNICAL DATA

Description	KBF P 240	KBF P 720
Housing dimensions not incl. fittings and connections		
Width net [mm]	925	1250
Height net [mm]	1460	1925
Depth net [mm]	800	890
Internal Dimensions		
Width [mm]	650	973
Height [mm]	785	1250
Depth [mm]	485	576
Measures		
Interior volume [L]	247	700
Net weight of the unit (empty) [kg]	213	374
permitted load [kg]	100	150
Load per rack [kg]	30	45
Performance Data Temperature		
Temperature range with 100% illumination [°C]	10…60	10…60
Temperature range without illumination cassettes [°C]	0…70	0…70
Performance Data Climate		
Temperature range with 100% illumination [°C]	10…60	20…60
Temperature range without illumination cassettes [°C]	10…70	10…70
Temperature variation with illumination at 40 °C and 75 % RH [± K]	0.6	1.2
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 40 °C and 75 % RH [± % RH]	2	2
Lightdata per Illumination Cassettes		
ICH compliant illumination for photo stability testing [lx]	7500	9000
ICH compliant illumination for photo stability testing [W/m²]	1.1	1.5
Electrical data		
Nominal power (version 230 V) [kW]	2.4	3.5
Nominal power (version 240 V) [kW]	2.4	3.5
Fixtures		
Number of shelves (std./max.)	2/7	3/12
Number of illumination cassettes (std./max.)	2/2	3/3

ORDERING INFORMATION [Art. No.]

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Voltage	Option model	KBF P 240	KBF P 720
200…230 V 1 50/60 Hz	Standard	9020-0328	9020-0330
200…240 V 1 50/60 Hz	Standard	9020-0329	9020-0331

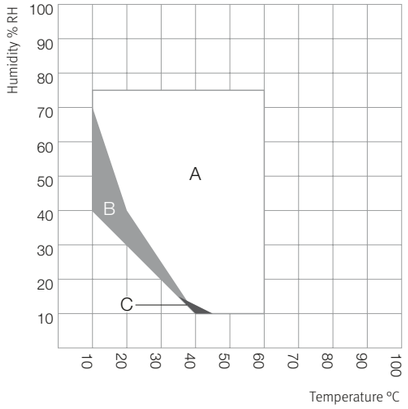
▸ You will find a selction of options, accessories and services suitable for each product on page 18

EXTRACT OF FULLFILLED STANDARDS

- ICH Q1A(R2)
- ICH Q1B

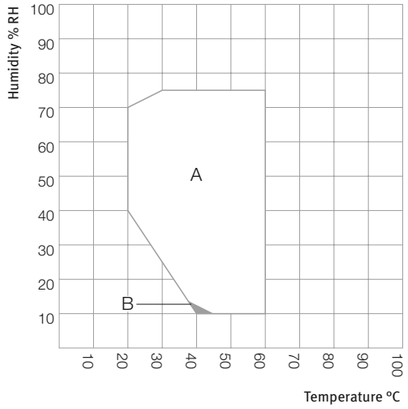
TEMPERATURE-HUMIDITY CHART

KBF P 240



A: Guaranteed condensation-free range
B: Time-limited operation (max. 24 hours)
C: Deviations of technical data may be possible

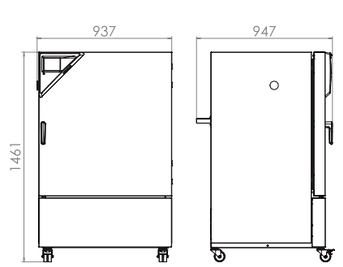
KBF P 720



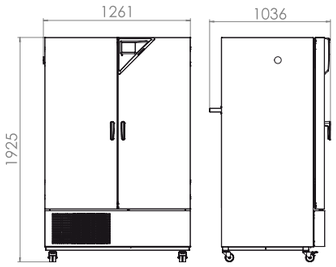
A: Guaranteed condensation-free range
B: Deviations of technical data may be possible

DIMENSIONS incl. fittings and connections [mm]

KBF P 240



KBF P 720



Series KBF LQC | with ICH-compliant light source and light dose control

The main advantage of the BINDER KBF LQC series is the patented light photometry for photostability tests. Two 3D spherical sensors control the light dosage of UV-A and visible light. Once the desired light dosage is achieved, the chamber switches off automatically.





KBF LQC 240 model

MAIN FEATURES

- Temperature range: 0 °C to 70 °C
- Temperature range with light: 10 °C to 60 °C
- Humidity range: 10 % to 80 % RH
- positionable illumination cassettes with ICH-compliant UV/Vis light source
- Independent light-dose control of UV-A and visible light with spherical sensors
- 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 with internal data recording
- Tight-sealing inner door made of safety glass (ESG) with special TIMELESS coating

AVAILABLE SIZES

Model	Interior volume [L]	Online data sheets
KBF LQC 240	247	› go2binder.com/en-KBFLQC240
KBF LQC 720	700	› go2binder.com/en-KBFLQC720

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Case Studies: › go2binder.com/en-case-studies

Find all details online
go2binder.com/en-KBFLQC

TECHNICAL DATA

Description	KBF LQC 240	KBF LQC 720
Housing dimensions not incl. fittings and connections		
Width net [mm]	925	1250
Height net [mm]	1460	1925
Depth net [mm]	800	890
Internal Dimensions		
Width [mm]	650	973
Height [mm]	785	1250
Depth [mm]	485	576
Measures		
Interior volume [L]	247	700
Net weight of the unit (empty) [kg]	213	374
permitted load [kg]	100	150
Load per rack [kg]	30	45
Performance Data Temperature		
Temperature range with 100% illumination [°C]	10…60	10…60
Temperature range without illumination cassettes [°C]	0…70	0…70
Performance Data Climate		
Temperature range with 100% illumination [°C]	10…60	20…60
Temperature range without illumination cassettes [°C]	10…70	10…70
Temperature variation with illumination at 40 °C and 75 % RH [± K]	0.6	1.2
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 40 °C and 75 % RH [± % RH]	2	2
Lightdata per Illumination Cassettes		
ICH compliant illumination for photo stability testing [lx]	7500	9000
ICH compliant illumination for photo stability testing [W/m²]	1.1	1.5
Electrical data		
Nominal power (version 230 V) [kW]	2.4	3.5
Nominal power (version 240 V) [kW]	2.4	3.5
Fixtures		
Number of shelves (std./max.)	2/7	3/12
Number of illumination cassettes (std./max.)	2/2	3/3

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Voltage	Option model	KBF LQC 240	KBF LQC 720
200…230 V 1 50/60 Hz	Standard	9020-0332	9020-0279
200…240 V 1 50/60 Hz	Standard	9020-0333	9020-0280

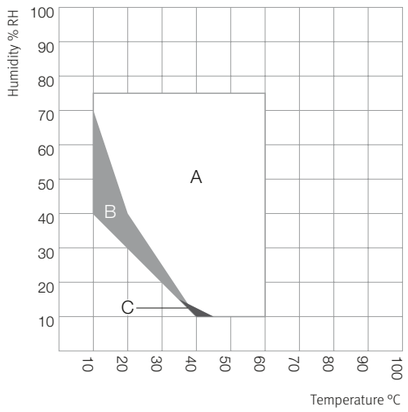
▸ You will find a selction of options, accessories and services suitable for each product on page 18

EXTRACT OF FULLFILLED STANDARDS

- ICH Q1A(R2)
- ICH Q1B

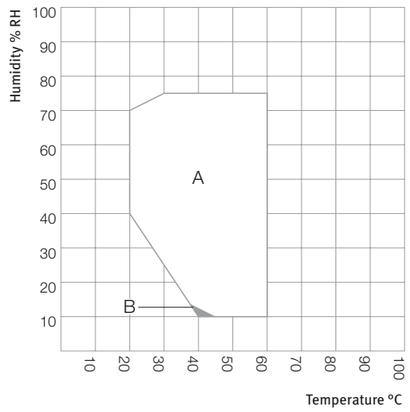
TEMPERATURE-HUMIDITY CHART

KBF LQC 240



A: Guaranteed condensation-free range
B: Time-limited operation (max. 24 hours)
C: Deviations of technical data may be possible

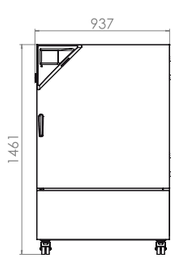
KBF LQC 720



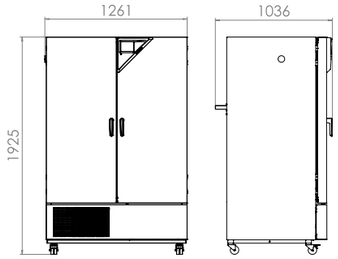
A: Guaranteed condensation-free range
B: Deviations of technical data may be possible

DIMENSIONS incl. fittings and connections [mm]

KBF LQC 240



KBF LQC 720



Series KMF | with expanded temperature / humidity range

The BINDER KMF ensures absolutely constant test conditions throughout the testing area. A big advantage of this constant climate chamber is its low space requirement and flexibility in terms of water supply. The wide temperature and humidity range make this constant climate chamber ideally suited for stress testing series.





KMF 240 model

MAIN FEATURES

- Temperature range: -10 °C to 100 °C
- Humidity range: 10 % RH to 98 % RH
- APT.line™ preheating chamber technology
- Humidity regulation with capacitive humidity sensor and vapor humidification
- Inner chamber made of stainless steel
- BINDER APT-COM™ 3 Basic Edition communication software
- Intuitive touchscreen controller with time-segment and real-time programming with internal data recording
- Tightly-sealed inner door made of tempered safety glass
- 1 stainless steel rack
- Access port with silicone plug, 30 mm, left
- Tight-sealing inner door made of safety glass (ESG) with special TIMELESS coating

AVAILABLE SIZES

Model	Interior volume [L]	Online data sheets
KMF 115	102	› go2binder.com/en-KMF115
KMF 240	247	› go2binder.com/en-KMF240
KMF 720	700	› go2binder.com/en-KMF720

i

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Case Studies: › go2binder.com/en-case-studies

Find all details online
go2binder.com/en-KMF

TECHNICAL DATA

Description	KMF 115	KMF 240	KMF 720
Housing dimensions not incl. fittings and connections			
Width net [mm]	880	930	1250
Height net [mm]	1050	1465	1925
Depth net [mm]	650	800	890
Internal Dimensions			
Width [mm]	600	650	973
Height [mm]	483	785	1250
Depth [mm]	351	485	576
Measures			
Interior volume [L]	102	247	700
Net weight of the unit (empty) [kg]	127	179	295
permitted load [kg]	100	100	150
Load per rack [kg]	30	30	45
Performance Data Temperature			
Temperature range [°C]	-10...100	-10...100	-10...100
Average heating-up rate according to IEC 60068-3-5 [K/min]	1.3	0.8	0.7
Average cooling down time according to IEC 60068-3-5 [K/min]	0.5	0.4	0.4
Performance Data Climate			
Temperature range [°C]	10...90	10...90	10...90
Temperature variation depending on setpoint [± K]	0.2...1	0.1...1	0.1...1
Temperature fluctuation depending on setpoint [± K]	0.1...0.3	0.1...0.3	0.1...0.5
Humidity range [% RH]	10...98	10...98	10...98
Humidity fluctuation depending on setpoint [± % RH]	≤2,5	≤2	≤2
Electrical data			
Nominal power (version 230 V) [kW]	2	2.1	3.1
Nominal power (version 240 V) [kW]	2	2.1	3.1
Fixtures			
Number of shelves (std./max.)	1/5	1/9	1/15

ORDERING INFORMATION [Art. No.]

Further details: Go to www.binder-world.com › Search › Enter Article Number

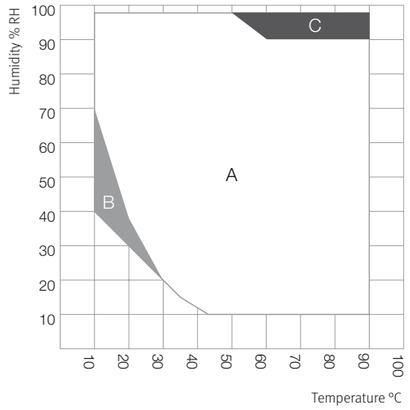
Voltage	Option model	KMF 115	KMF 240	KMF 720
200...230 V 1 50/60 Hz	Standard	9020-0341	9020-0343	9020-0345
200...240 V 1 50/60 Hz	Standard	9020-0342	9020-0344	9020-0346

▸ You will find a selction of options, accessories and services suitable for each product on page 18

EXTRACT OF FULLFILLED STANDARDS

- ICH Q1A(R2)

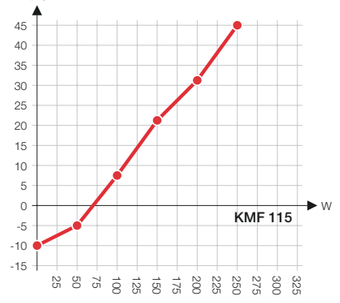
TEMPERATURE-HUMIDITY CHART



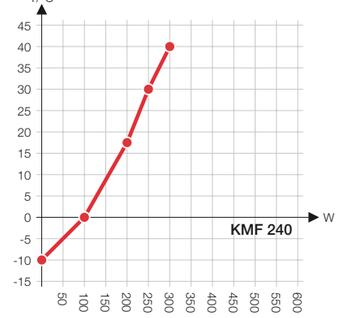
A: Guaranteed condensation-free range
B: Time-limited operation (max. 24 hours)
C: Condensation in the inner chamber may be possible

HEAT COMPENSATION

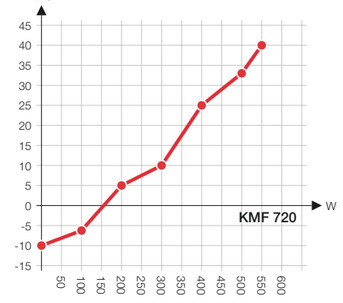
KMF 115



KMF 240

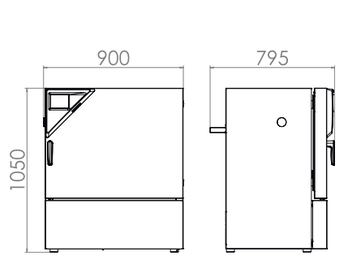


KMF 720

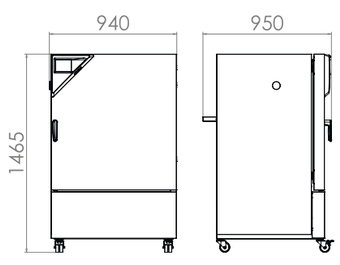


DIMENSIONS incl. fittings and connections [mm]

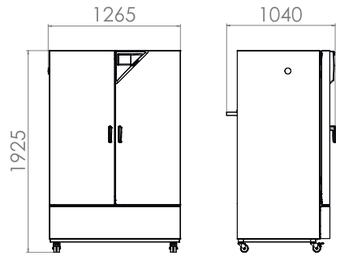
KMF 115



KMF 240



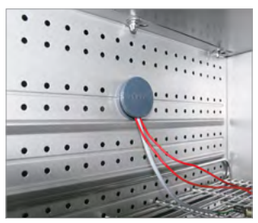
KMF 720



EXCERPT FROM OPTIONS AND ACCESSORIES

Access port with silicone plug	For introducing external measuring instruments. Large selection of different diameters and positions (left, right, or top) Series KBF, KBF P, KBF LQC, KMF
BINDER PURE AQUA Service	System for preparation or complete desalination of tap water, containing single-use cartridge, hoses and measuring device. Series KBF, KBF P, KBF LQC, KMF
Data Logger Kit TH	Independent temperature and humidity data logging. The tailored product solution contains helpful accessories: From the magnetic mounting of the data logger to the BINDER unit and securing sensor cable for accurate readings. Series KBF, KBF P, KBF LQC, KMF
LED light bar sets	LED light bars in three different lengths (30, 50, 90 cm) can be easily and variably positioned in the BINDER unit, including various attachment options and control unit. Additional light bars can be added as desired. Series KBF
Services	You can access our installation, maintenance, calibration, validation, or warranty services by taking out a Maintenance Service Agreement or by simply getting in touch when you need us. More information is available in the accessories and services chapter. Series KBF, KBF P, KBF LQC, KMF
BINDER INDIVIDUAL	Using a BINDER series production product as a basis, we develop individual solutions as a single unit or in small batches. All products are tested, certified, and supplied with a full functional guarantee and warranty. More information is available in the accessories and services chapter. Series KBF, KBF P, KBF LQC, KMF

▸ All extras online go2binder.com/en-options



Access port with silicone plug



BINDER PURE AQUA Service



Data Logger



LED light bar sets

BINDER products

- CO_2 incubators
- Incubators
- Cooling incubators
- Growth chambers
- Ultralow temperature freezers
- Drying and heating chambers
- Safety drying chambers
- Vacuum drying chambers
- Constant climate chambers
- Dynamic climate chambers

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