

Constant climate chambers



Always the right climate

KBF | KBF-S | KBF P | KBF LQC | KMF series

MK | MKF | MKT | MKFT series



PRODUCT SELECTION CONSTANT CLIMATE CHAMBERS

Features		KBF › Page 6	KBF-S › Page 24	KBF P › Page 9	KBF LQC › Page 12	KMF › Page 15
Model						
Model 11 5		•	–	–	–	•
Model 240		•	•	•	•	•
Model 720		•	•	•	•	•
Model 10 20		•	–	–	–	–
General data						
Temperature range [°C]		0...70	10...70	–	–	–10...10 0
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...80	10...98
Ethernet interface		•	•	•	•	•
USB interface		•	•	•	•	•
Forced convection		•	•	•	•	•
Controller and timer functions						
Controller display		TFT touch	LCD	TFT touch	TFT touch	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		•	•	•	•	•
Suitable for stability tests						
ICH Q1A	Long-term testing	•	•	•	•	•
	Accelerated testing	•	•	•	•	•
	Stress testing	•	–	•	•	•
ICH Q1B	Photostability testing	–	–	•	•	–
85/85-THB-test		–	–	–	–	•

• Standard equipment

Constant climate chambers

Series KBF	Page 6
Series KBF P	Page 9
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Series KMF	Page 15
Options and Accessories	Page 18

BINDER climatic chambers stand out when testing material behaviors under constant temperature and humidity conditions. A climatic 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	Series KBF › Page 6	Series KBF P › Page 9	Series KBF LQC › Page 12	Series KMF › Page 15
Model				
Model 11 5	•	–	–	•
Model 240	•	•	•	•
Model 720	•	•	•	•
Model 10 20	•	–	–	–
General data				
Temperature range [°C]	0...70	–	–	-10 ...10 0
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, KBFP, KBF LQC, KMF

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



INTUITIVE TOUCHSCREEN CONTROLLER

Series KBF, KBFP, 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, KBFP, 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 constant climate 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
- 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
- Inner chamber made of stainless steel

AVAILABLE SIZES

Model	Interior volume [L]	Online data sheets
KBF 115	102	› gozbinder.com/en-KBF115
KBF 240	247	› gozbinder.com/en-KBF240
KBF 720	700	› gozbinder.com/en-KBF720
KBF 1020	1020	› gozbinder.com/en-KBF1020



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



Find all details online
gozbinder.com/en-KBF

TECHNICAL DATA

Description	KBF 115	KBF 240	KBF 720	KBF 1020
Outer dimensions				
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	189	312	379
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

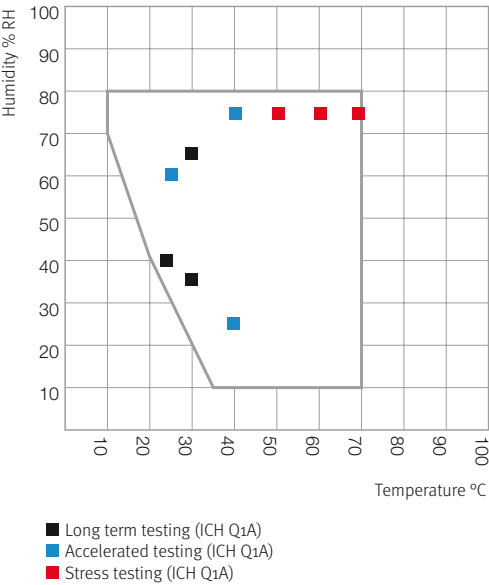
► You will find a selection of options, accessories and services suitable for each product on page 18

EXTRACT OF FULLFILLED STANDARDS

- ICH Q1A(R2)

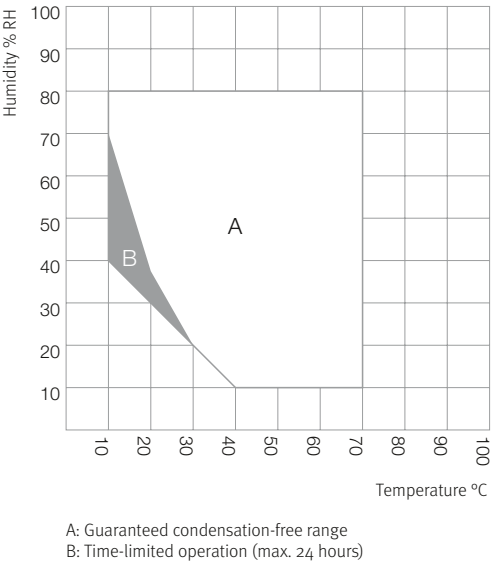
TEMPERATURE-HUMIDITY CHART WITH ICH CHECKPOINTS

KBF 115, KBF 240, KBF 720, KBF 1020



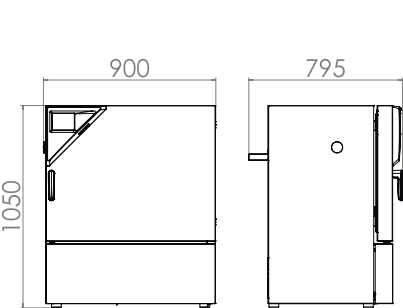
TEMPERATURE-HUMIDITY CHART

KBF 115, KBF 240, KBF 720, KBF 1020

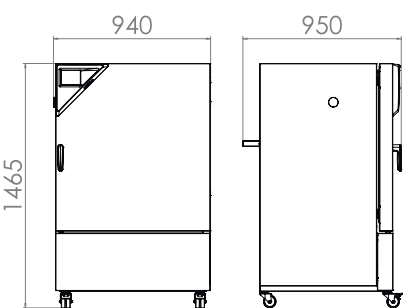


DIMENSIONS incl. fittings and connections [mm]

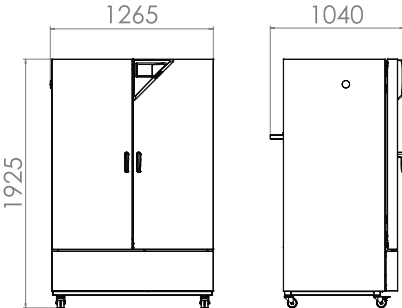
KBF 115



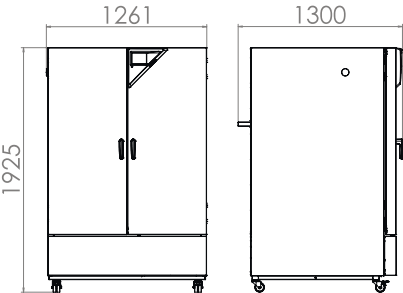
KBF 240



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 illumination 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
- Internal data logger, measured values can be read out in open format via USB
- Unit self-test for comprehensive status analysis

AVAILABLE SIZES

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



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TECHNICAL DATA

Description	KBF P 240	KBF P 720
Outer dimensions		
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]	0	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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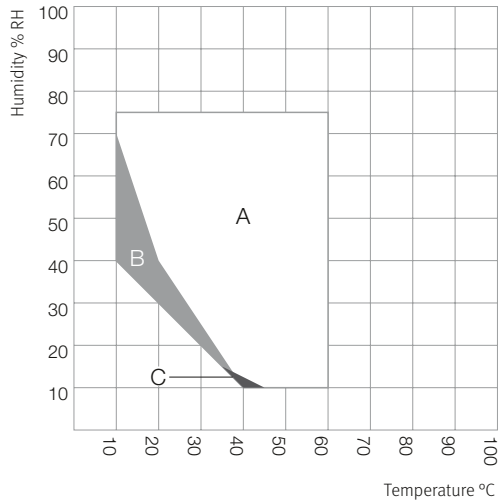
Voltage	Option model	KBF P 240	KBF P 720
200...230 V 1~ 50/60 Hz	Standard	9020-0328	9020-0330
200...240 V 1~ 50/60 Hz	Standard	9020-0329	9020-0331

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

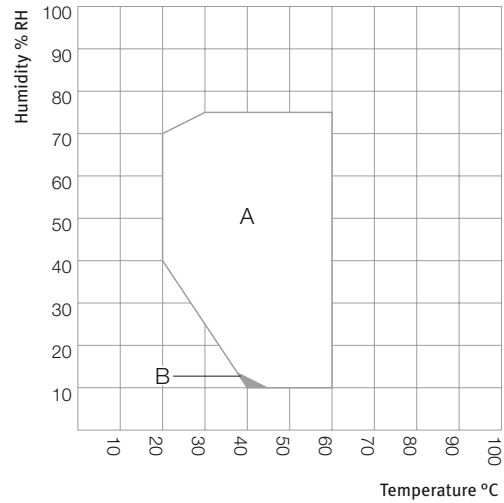
EXTRACT OF FULLFILLED STANDARDS

- ICH Q1A(R2)
- ICH Q1B

TEMPERATURE-HUMIDITY CHART

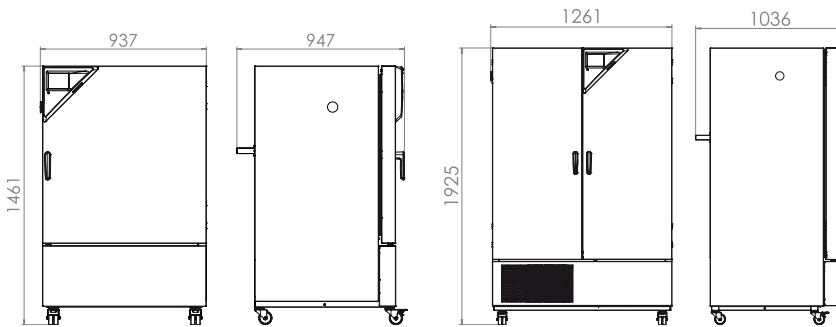
KBF P 240


- 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
- Internal data logger, measured values can be read out in open format via USB

AVAILABLE SIZES

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



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Find all details online
gozbinder.com/en-KBFLQC

TECHNICAL DATA

Description	KBF LQC 240	KBF LQC 720
Outer dimensions		
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]	217	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	0
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.]

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

Voltage	Option model	KBF LQC 240	KBF LQC 720
200...230 V 1~ 50/60 Hz	Standard	9020-0332	9020-0334
200...240 V 1~ 50/60 Hz	Standard	9020-0333	9020-0335

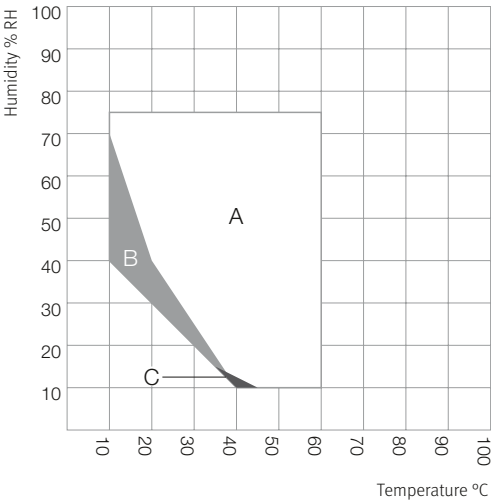
► You will find a selection of options, accessories and services suitable for each product on page 18

EXTRACT OF FULLFILLED STANDARDS

- ICH Q1A(R2)
- ICH Q1B

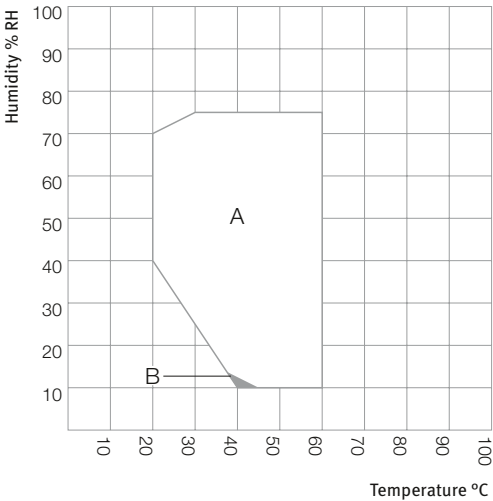
TEMPERATURE-HUMIDITY CHART

KBF LQC 240



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

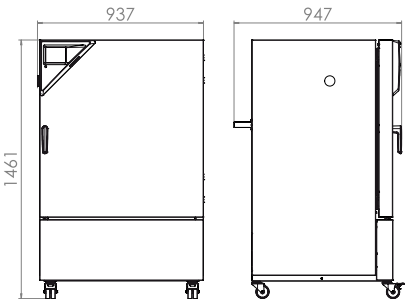
KBF LQC 720



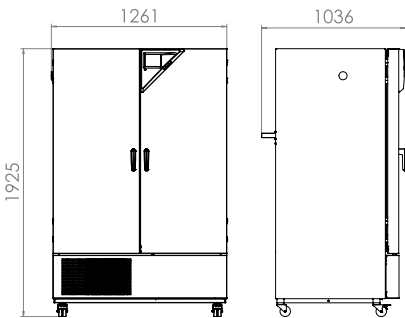
A: Guaranteed condensation-free range
B: Deviations of technical data may be possible

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™ Basic Edition communication software
- 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)

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

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Find all details online
go2binder.com/en-KMF

TECHNICAL DATA

Description	KMF 115	KMF 240	KMF 720
Outer dimensions			
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

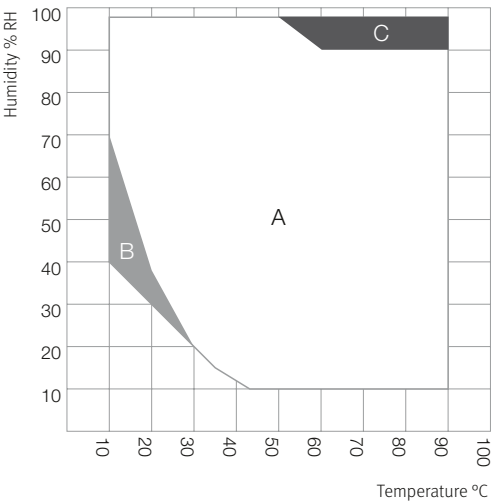
► You will find a selection of options, accessories and services suitable for each product on page 18

EXTRACT OF FULLFILLED STANDARDS

- ICH Q1A(R2)

TEMPERATURE-HUMIDITY CHART

KMF 115, KMF 240, KMF 720



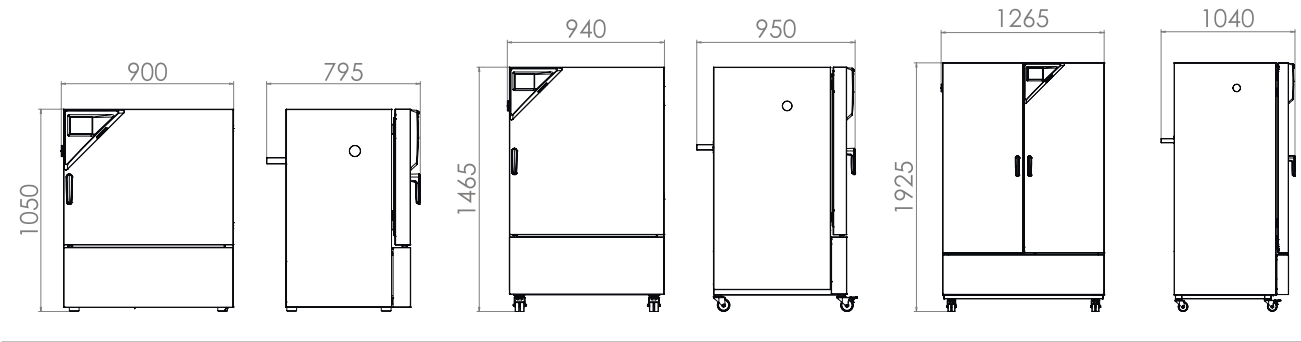
A: Guaranteed condensation-free range
B: Time-limited operation (max. 24 hours)
C: Condensation in the inner chamber may be possible

DIMENSIONS incl. fittings and connections [mm]

KMF 115

KMF 240

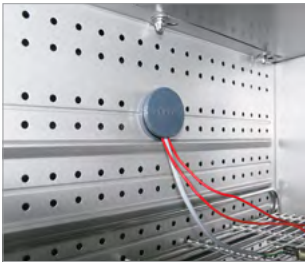
KMF 720



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, complete set containing PURE AQUA 300 single-use cartridge, measuring device, and all necessary connecting parts 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, KBF P, KBF LQC, KMF
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 gozbinder.com/en-options



Access port with silicone plug



BINDER PURE AQUA Service



Data Logger



LED light strip sets

Solid.Line



With its new Solid.Line range, BINDER is expanding its product portfolio of drying and heating chambers, incubators, and constant climate chambers. This new line embodies **solid product design** with **great value for money**. The new Solid.Line is the ideal addition to BINDER's popular premium products, thus complementing the entire product range with BINDER's quality guarantee – Made in Germany.

Solid.Line constant climate chambers

Series KBF-S Solid.Line

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Options and Accessories

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With its new Solid.Line range, BINDER is expanding its product portfolio. This new line embodies solid product design with great value for money. This is the ideal addition to BINDER's popular premium products, thus complementing the entire product range with BINDER's quality guarantee – Made in Germany.

PRODUCT SELECTION SOLID.LINE CONSTANT CLIMATE CHAMBERS

Features	Series KBF-S Solid.Line
	› Page 24
Model	
Model 240	•
Model 720	•
General data	
Temperature range [°C]	0...70
Humidity range [% RH]	10 ...80
Ethernet interface	•
USB interface	•
Forced convection	•
Controller and timer functions	
Controller display	LCD
Adjustable fan speed	•
Class 3.1 independent temperature safety device	•
Temperature alarm, acoustic	•
Temperature alarm, visual	•
•Standard equipment	

ADVANTAGES AT A GLANCE



FAST AND PRECISE HUMIDIFICATION

Series KBF-S

The patented long-life steam humidification system and the capacitive humidity sensor ensure on target humidity values.



HOMOGENEOUS TEMPERATURE DISTRIBUTION

Series KBF-S

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



NO RISK OF CORROSION

Series KBF-S

Because the inner chamber and all fixtures are made entirely from stainless steel.

Series KBF-S Solid.Line | with large temperature / humidity range

The new Solid.Line KBF-S climate chamber is a custom-made solution for long-term testing and accelerated stability testing for pharmaceutical products in accordance with the ICH Q1A guideline. The corrosion-free and condensation-free interior also ensures exceptionally stable temperature and moisture levels, even when fully loaded.



Model KBF-S 720

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 steam humidification
- LCD to display temperature and humidity along with additional information and alarms
- Internal data logger, measured values can be read out in open format via USB
- Unit self-test for comprehensive status analysis
- Inner chamber made completely of stainless steel
- 2 stainless steel racks
- Access port with silicone plug, 30 mm, left

AVAILABLE SIZES

Model	Interior volume [L]	Online data sheets
KBF-S 240	247	› go2binder.com/en-KBF-S240
KBF-S 720	700	› go2binder.com/en-KBF-S720



Find all details online
go2binder.com/en-KBF-S

TECHNICAL DATA

Description	KBF-S 240	KBF-S 720
Outer dimensions		
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]	161	284
permitted load [kg]	100	150
Load per rack [kg]	30	45
Performance Data Temperature		
Temperature range [°C]	0...70	0...70
Temperature variation at 40 °C [± K]	0.3	0.3
Temperature fluctuation [± K]	0.1	0.1
Performance Data Climate		
Temperature range [°C]	10...70	10...70
Temperature variation at 40 °C and 75 % RH [± K]	0.3	0.3
Temperature fluctuation at 40 °C and 75 % RH [± K]	0.1	0.1
Humidity range [% RH]	10...80	10...80
Electrical data		
Nominal power (version 230V) [kW]	1.4	2
Nominal power (version 240V) [kW]	1.4	2
Fixtures		
Number of shelves (std./max.)	2/9	2/15

ORDERING INFORMATION [Art. No.]

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

Voltage	Option model	KBF-S 240	KBF-S 720
200...230 V 1~ 50/60 Hz	Standard	9020-0366	9020-0368
200...240 V 1~ 50/60 Hz	Standard	9020-0367	9020-0369

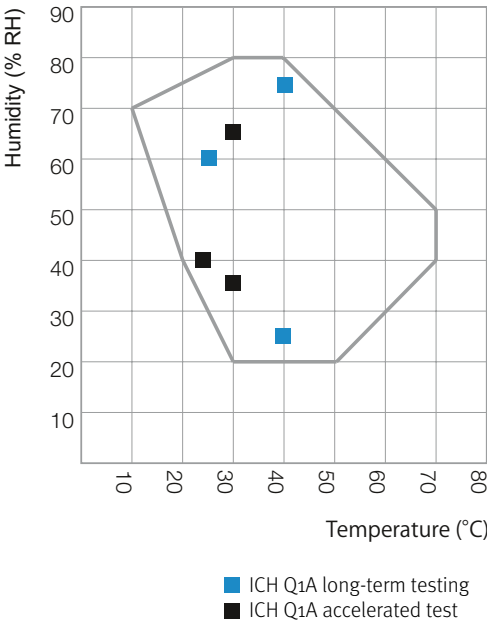
► You will find a selection of options, accessories and services suitable for each product on page 27

EXTRACT OF FULLFILLED STANDARDS

- ICH Q1A(R2)

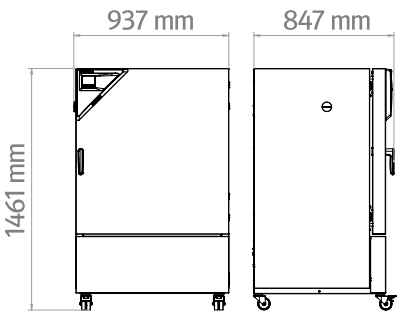
TEMPERATURE-HUMIDITY CHART WITH ICH CHECKPOINTS

KBF-S 240, KBF-S 720

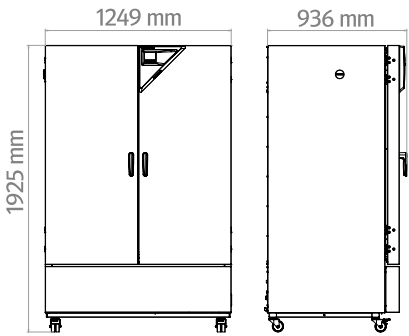


DIMENSIONS incl. fittings and connections [mm]

KBF-S 240



KBF-S 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-S

Convenient water supply

Flexible positioning of the water container with magnetic holder, hose adapter for water container with practical quick coupling, and water stop function.

Series KBF-S

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-S

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-S

► All extras online gozbinder.com/en-options



Access port with silicone plug



Convenient water supply



Data Logger



Services

Dynamic climate chambers

Series MK	Page 32
Series MKF	Page 35
Series MKT	Page 39
Series MKFT	Page 42
Options and Accessories	Page 45

BINDER environmental chambers are perfectly suited to material testing under dynamic conditions.

The standard rapid alternation speeds of around 5 K/min make standard-compliant testing possible.

An environmental simulation chamber of the MK and MKT Series is suitable for complex temperature profiles in the range of -40 °C or -70 °C to 180 °C.

MKF and MKFT Series of dynamic climate chambers not only make material testing in this temperature range possible, but can also regulate humidity in the range of 10 % to 98 % RH.

PRODUCT SELECTION DYNAMIC CLIMATE CHAMBERS

Features	Series MK › Page 32	Series MKF › Page 35	Series MKT › Page 39	Series MKFT › Page 42
Model				
Model 56	•	•	–	–
Model 115	•	•	•	•
Model 240	•	•	•	•
Model 720	•	•	•	•
General data				
Temperature range [°C]	-40...180	-40...180	-70...180	-70...180
Humidity range [% RH]	–	10...98	–	10...98
Ethernet interface	•	•	•	•
USB interface	•	•	•	•
Forced convection	•	•	•	•
Controller and timer functions				
Controller display	TFT touch			
Ramp function	•	•	•	•
Time delayed ON	•	•	•	•
Programming option	•	•	•	•
Class 1 temperature safety device	•	•	•	•
Class 2 independent adjustable temperature safety device	•	•	•	•
Temperature alarm, acoustic	•	•	•	•
Temperature alarm, visual	•	•	•	•

•Standard equipment

ADVANTAGES AT A GLANCE



HOMOGENEOUS TEMPERATURE DISTRIBUTION

Series MK, MKF, MKT, MKFT

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



FLEXIBLE WATER SUPPLY

Series MKF, MKFT

The flexible water supply is easy to handle and can be operated independently of the water supply.



CONVENIENT WORK ENVIRONMENT

Series MK, MKF, MKT, MKFT

With our high level of standard equipment, such as the heated viewing window with LED illumination and a large access area for easy assembly a convenient work environment can be established.



PROGRAMMING AND DATA COLLECTION

Series MK, MKF, MKT, MKFT

Data collection and programming can be created via the program controller featuring an color display and our APT.COM™ software for remotely through a PC.

Series MK | 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.



MK 56 model

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 APT-COM™ 3 Basic Edition communication software
- 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
- Access port with silicone plug (Models 56, 115, 240), 50 mm, left
- 2 access ports with silicone plugs (Model 720), 80 mm, left and right

AVAILABLE SIZES

Model	Interior volume [L]	Online data sheets
MK 56	60	› go2binder.com/en-MK56
MK 115	115	› go2binder.com/en-MK115
MK 240	228	› go2binder.com/en-MK240
MK 720	734	› go2binder.com/en-MK720

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



Find all details online
go2binder.com/en-MK

TECHNICAL DATA

Description	MK 56	MK 115	MK 240	MK 720
Outer dimensions				
Width net [mm]	740	980	1115	1580
Height net [mm]	1445	1725	1715	2005
Depth net [mm]	778	865	925	1140
Internal Dimensions				
Width [mm]	400	600	735	1200
Height [mm]	420	480	700	1020
Depth [mm]	350	400	443	600
Measures				
Interior volume [L]	60	115	228	734
Net weight of the unit (empty) [kg]	168	260	340	570
permitted load [kg]	60	60	70	160
Load per rack [kg]	15	30	30	40
Performance Data Temperature				
Temperature range [°C]	-40...180	-40...180	-40...180	-40...180
Temperature variation depending on setpoint [± K]	0.5...1.5	0.1...2	0.1...1.2	0.3...2
Temperature fluctuation depending on setpoint [± K]	0.1...0.5	0.1...0.5	0.1...0.5	0.1...0.5
Average heating-up rate according to IEC 60068-3-5 [K/min]	5	5.3	5	4
Average cooling down time according to IEC 60068-3-5 [K/min]	5	5	4.5	4.5
Electrical data				
Nominal power (version 230 V) [kW]	2.8	–	–	–
Nominal power (version 240 V) [kW]	2.8	–	–	–
Nominal power (version 400 V) [kW]	–	3.5	5.6	8.7
Fixtures				
Number of shelves (std./max.)	1/4	1/4	1/6	1/11

ORDERING INFORMATION [Art. No.]

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

Voltage	Option model	MK 56	MK 115	MK 240	MK 720
480 V 3 60 Hz	with voltage and frequency converter	–	9020-0303	9020-0355	9020-0356
400 V 3 50 Hz	Standard	–	9020-0375	9020-0376	9020-0377
240 V 1 60 Hz	Standard	9020-0388	–	–	–
230 V 1 50 Hz	Standard	9020-0374	–	–	–

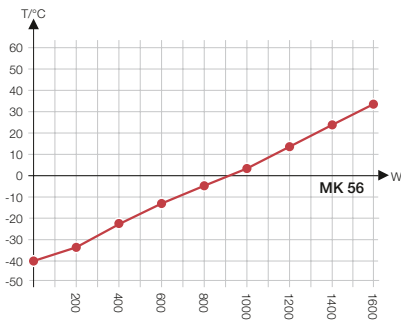
► You will find a selection of options, accessories and services suitable for each product on page 19

EXTRACT OF FULLFILLED STANDARDS

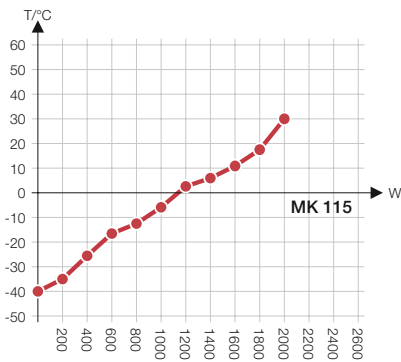
- MIL STD 810:2000-01
- DIN EN 60068-2-14

HEAT COMPENSATION

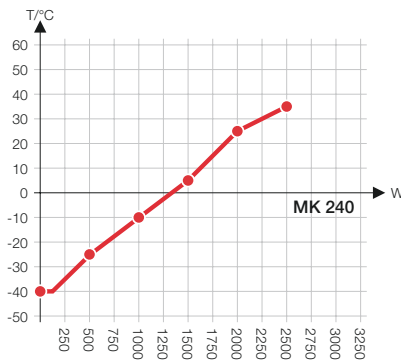
MK 56



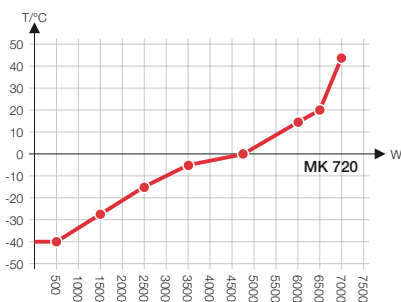
MK 115



MK 240

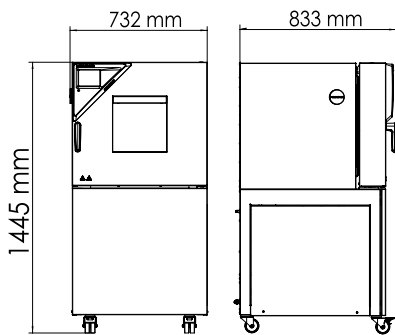


MK 720

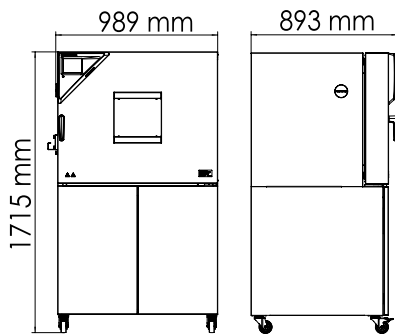


DIMENSIONS incl. fittings and connections [mm]

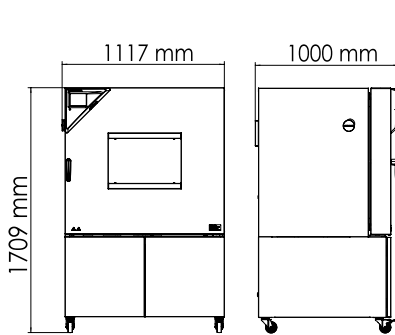
MK 56



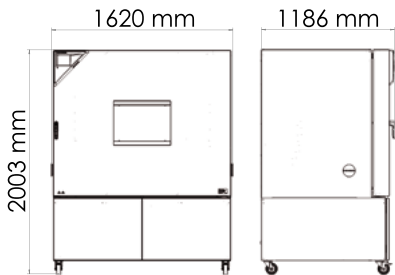
MK 115



MK 240



MK 720



Series MKF | for rapid temperature changes with humidity control

A BINDER MKF series environmental simulation chamber is ideally suited for any cold and heat testing based on current temperature and climate testing methods according to DIN and IEC standards. The comprehensive standard equipment for this environmental simulation chamber ensures ease of operation.



MKF 56 model



MAIN FEATURES

- Temperature range: -40 °C to 180 °C
- Humidity range: 10 % to 98 % RH
- Integrated water-storage tank, 20 liters (Models 115, 240, 720)
- 4 zero-voltage relay contacts
- 1 stainless steel rack
- APT.line™ preheating chamber technology
- Intuitive touchscreen controller with time-segment and real-time programming
- Internal data logger, measured values can be read out in open format via USB
- Programmable condensation protection for test material
- Heated viewing window with LED interior lighting

AVAILABLE SIZES

Model	Interior volume [L]	Online data sheets
MKF 56	60	› go2binder.com/en-MKF56
MKF 115	115	› go2binder.com/en-MKF115
MKF 240	228	› go2binder.com/en-MKF240
MKF 720	734	› go2binder.com/en-MKF720



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



Find all details online
go2binder.com/en-MKF

TECHNICAL DATA

Description	MKF 56	MKF 115	MKF 240	MKF 720
Outer dimensions				
Width net [mm]	720	980	1115	1580
Height net [mm]	1445	1725	1715	2005
Depth net [mm]	780	865	925	1140
Internal Dimensions				
Width [mm]	400	600	735	1200
Height [mm]	420	480	700	1020
Depth [mm]	348	400	443	600
Measures				
Interior volume [L]	60	115	228	734
Net weight of the unit (empty) [kg]	280	280	360	590
permitted load [kg]	60	60	70	160
Load per rack [kg]	15	30	30	40
Performance Data Temperature				
Temperature range [°C]	-40...180	-40...180	-40...180	-40...180
Temperature variation depending on setpoint [± K]	0.5...1.5	0.1...1.3	0.1...1.5	0.1...1.8
Temperature fluctuation depending on setpoint [± K]	0.1...0.5	0.1...0.6	0.1...0.5	0.1...0.5
Average heating-up rate according to IEC 60068-3-5 [K/min]	5	5.5	5	4.8
Average cooling down time according to IEC 60068-3-5 [K/min]	5	4.5	5	4.8
Performance Data Climate				
Temperature range [°C]	10...95	10...95	10...95	10...95
Temperature fluctuation depending on setpoint [± K]	0.1...0.5	0.1...1.3	0.1...1.3	0.2...1.5
Humidity range [% RH]	10...98	10...98	10...98	10...98
Humidity fluctuation depending on setpoint [± % RH]	≤2,5	≤2,5	≤2,5	≤2,5
Electrical data				
Nominal power (version 230 V) [kW]	2.8	–	–	–
Nominal power (version 240 V) [kW]	2.8	–	–	–
Nominal power (version 400 V) [kW]	–	4.8	6.8	11
Fixtures				
Number of shelves (std./max.)	1/4	1/4	1/6	1/11

ORDERING INFORMATION [Art. No.]

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

Voltage	Option model	MKF 56	MKF 115	MKF 240	MKF 720
480 V 3 60 Hz	with voltage and frequency converter	–	9020-0357	9020-0358	9020-0359
400 V 3 50 Hz	Standard	–	9020-0207	9020-0208	9020-0210
200...230 V 1 50 Hz	Standard	9020-0317	–	–	–
200...240 V 1 60 Hz	Standard	9020-0396	–	–	–

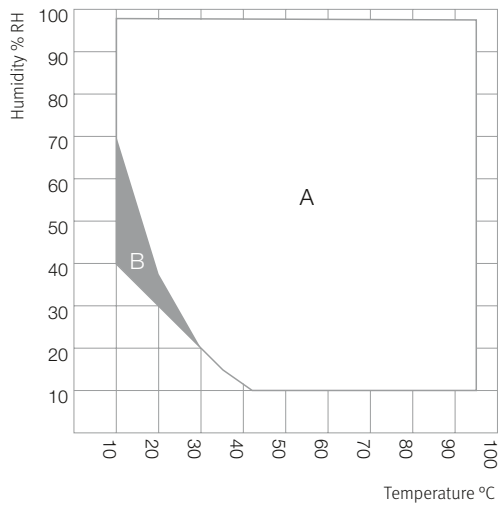
► You will find a selection of options, accessories and services suitable for each product on page 19

EXTRACT OF FULLFILLED STANDARDS

- DIN EN 60068-2-30: 2006-06
- DIN EN 60068-2-38: 2010-06
- MIL STD 810:2000-01
- DIN EN 60068-2-66

TEMPERATURE-HUMIDITY CHART

MKF 56, MKF 115, MKF 240, MKF 720

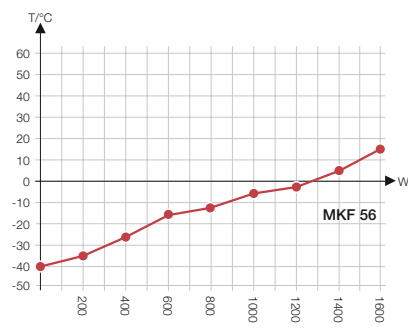


A: Standard Climate range

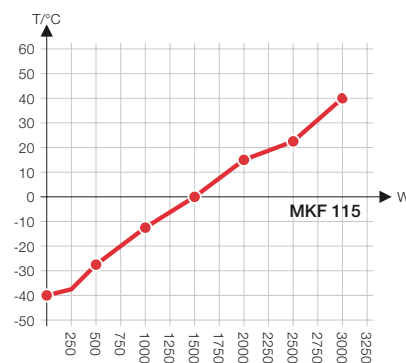
B: Time-limited operation (max. 24 hours)

HEAT COMPENSATION

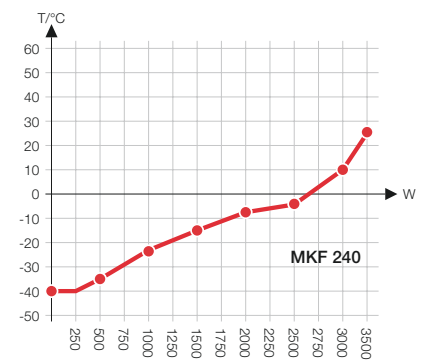
MKF 56



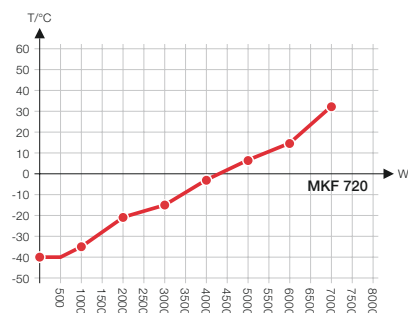
MKF 115



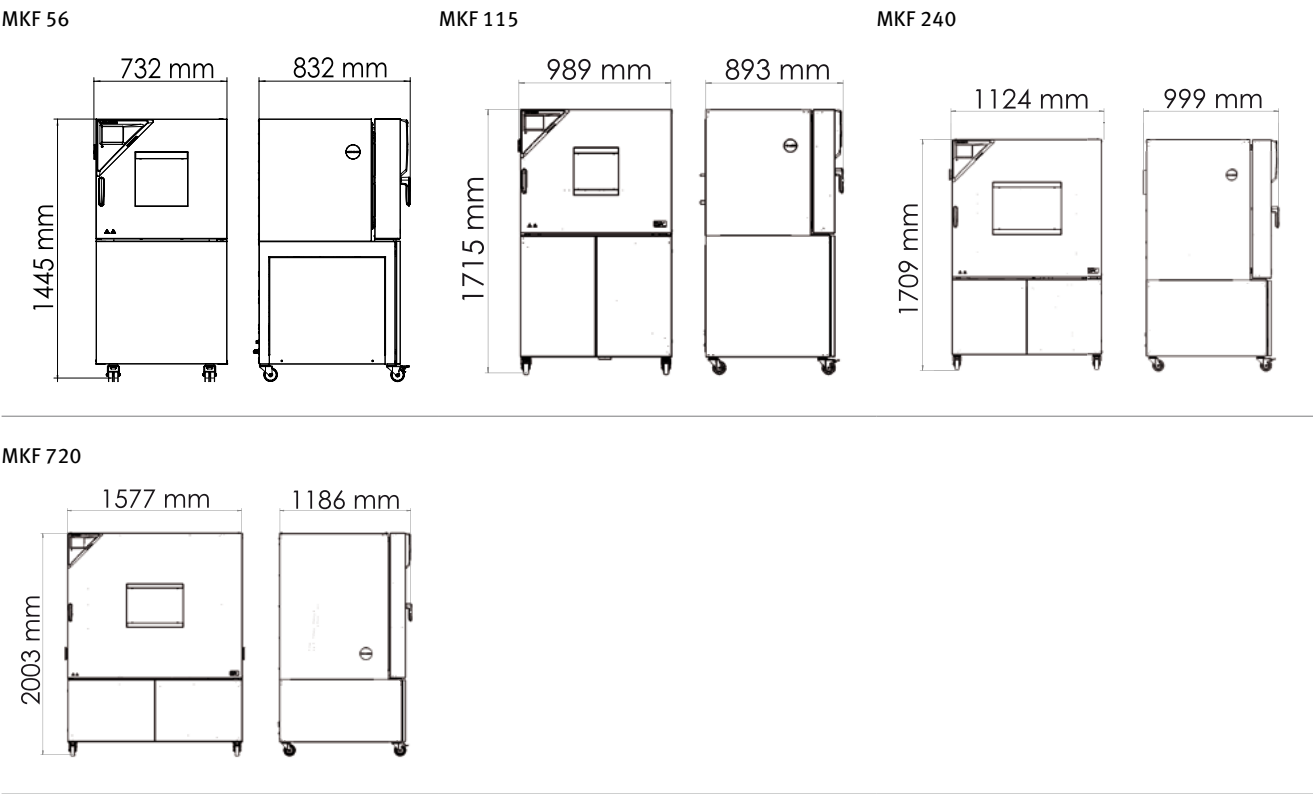
MKF 240



MKF 720



DIMENSIONS incl. fittings and connections [mm]



Series MKT | for rapid temperature changes with extended low temperature range

Temperature ranges between -70 °C and 180 °C, with the added benefit of natural simulation, are what make the BINDER MKT series so unique. At the same time, this environmental simulation chamber fulfills the very highest precision and performance requirements for cyclical temperature tests.



Model MKT 240

MAIN FEATURES

- Temperature range: -70 °C to 180 °C
- 4 zero-voltage relay contacts
- APT.line™ preheating chamber technology
- Programmable condensation protection for test material
- Heated viewing window with LED interior lighting
- BINDER APT-COM™ 3 Basic Edition communication software
- 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
- Access port with silicone plug (Models 115, 240: 50 mm, left)

AVAILABLE SIZES

Model	Interior volume [L]	Online data sheets
MKT 115	115	› go2binder.com/en-MKT115
MKT 240	228	› go2binder.com/en-MKT240
MKT 720	734	› go2binder.com/en-MKT720



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



Find all details online
go2binder.com/en-MKT

TECHNICAL DATA

Description	MKT 115	MKT 240	MKT 720
Outer dimensions			
Width net [mm]	980	1115	1580
Height net [mm]	1725	1935	2005
Depth net [mm]	865	925	1140
Internal Dimensions			
Width [mm]	600	735	1200
Height [mm]	480	700	1020
Depth [mm]	400	443	600
Measures			
Interior volume [L]	115	228	734
Net weight of the unit (empty) [kg]	305	380	610
permitted load [kg]	60	70	160
Load per rack [kg]	30	30	40
Performance Data Temperature			
Temperature range [°C]	-70...180	-70...180	-70...180
Temperature variation depending on setpoint [± K]	0.2...1.8	0.1...1.0	0.3...2
Temperature fluctuation depending on setpoint [± K]	0.1...0.6	0.1...0.4	0.1...0.5
Average heating-up rate according to IEC 60068-3-5 [K/min]	5.3	5	4.5
Average cooling down time according to IEC 60068-3-5 [K/min]	4	4.2	4.2
Electrical data			
Nominal power (version 400 V) [kW]	5.5	6.5	13
Fixtures			
Number of shelves (std./max.)	1/4	1/6	1/11

ORDERING INFORMATION [Art. No.]

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

Voltage	Option model	MKT 115	MKT 240	MKT 720
480 V 3 60 Hz	with voltage and frequency converter	9020-0363	9020-0364	9020-0365
400 V 3 50 Hz	Standard	9020-0385	9020-0386	9020-0387

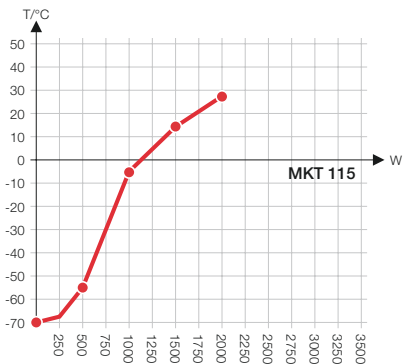
► You will find a selection of options, accessories and services suitable for each product on page 19

EXTRACT OF FULLFILLED STANDARDS

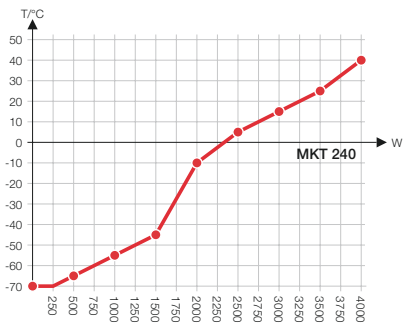
- DIN EN 60068-2-1: 2008-01
- DIN EN 60068-3-5:2002-12
- MIL STD 810:2000-01

HEAT COMPENSATION

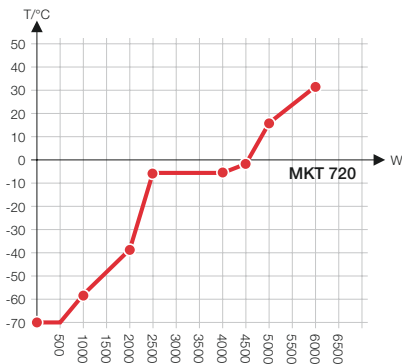
MKT 115



MKT 240

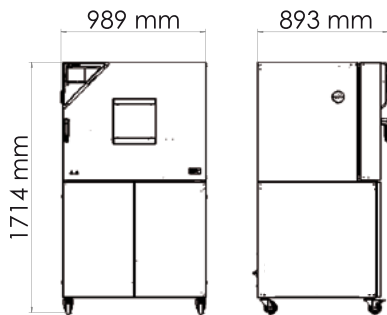


MKT 720

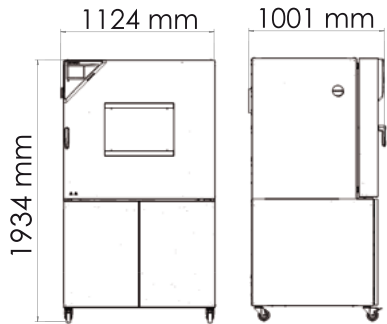


DIMENSIONS incl. fittings and connections [mm]

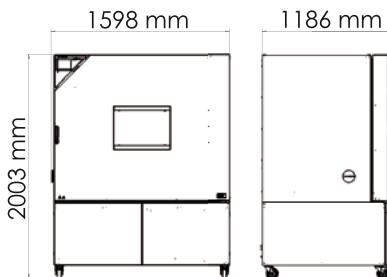
MKT 115



MKT 240



MKT 720



Series MKFT | for rapid temperature changes with humidity control and extended low temperature range

The BINDER MKFT series environmental simulation chamber for low temperature alternating climate profiles is the specialist for dynamic alternating climate change between -70 °C and 180 °C. Large performance reserves and rapid cooling make the MKFT environmental simulation chamber the high-end product for complex standards-based climate tests.



Model MKFT 240

MAIN FEATURES

- Temperature range: -70 °C to 180 °C
- Humidity range: 10 % to 98 % RH
- Integrated water-storage tank, 20 liters
- 4 zero-voltage relay contacts
- APT.line™ preheating chamber technology
- Programmable condensation protection for test material
- Intuitive touchscreen controller with time-segment and real-time programming
- Internal data logger, measured values can be read out in open format via USB
- Heated viewing window with LED interior lighting
- Humidity regulation with capacitive humidity sensor and vapor humidification

AVAILABLE SIZES

Model	Interior volume [L]	Online data sheets
MKFT 115	115	› go2binder.com/en-MKFT115
MKFT 240	228	› go2binder.com/en-MKFT240
MKFT 720	734	› go2binder.com/en-MKFT720

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Case Studies:

› go2binder.com/en-case-studies



Find all details online
go2binder.com/en-MKFT

TECHNICAL DATA

Description	MKFT 115	MKFT 240	MKFT 720
Outer dimensions			
Width net [mm]	980	1115	1580
Height net [mm]	1725	1940	2005
Depth net [mm]	865	925	1140
Internal Dimensions			
Width [mm]	600	735	1200
Height [mm]	480	700	1020
Depth [mm]	400	443	600
Measures			
Interior volume [L]	115	228	734
Net weight of the unit (empty) [kg]	330	415	635
permitted load [kg]	60	70	160
Load per rack [kg]	30	30	40
Performance Data Temperature			
Temperature range [°C]	-70...180	-70...180	-70...180
Temperature variation depending on setpoint [± K]	0.1...1.3	0.2...1.8	0.3...2
Temperature fluctuation depending on setpoint [± K]	0.1...0.5	0.1...0.5	0.1...0.5
Average heating-up rate according to IEC 60068-3-5 [K/min]	5.5	5	4.8
Average cooling down time according to IEC 60068-3-5 [K/min]	4.2	4.2	4
Performance Data Climate			
Temperature range [°C]	10...95	10...95	10...95
Temperature fluctuation depending on setpoint [± K]	0.1...1	0.1...1.5	0.1...1
Humidity range [% RH]	10...98	10...98	10...98
Humidity fluctuation depending on setpoint [± % RH]	≤2,5	≤2,5	≤2,5
Electrical data			
Nominal power (version 400 V) [kW]	5.5	6.5	13
Fixtures			
Number of shelves (std./max.)	1/4	1/6	1/11

ORDERING INFORMATION [Art. No.]

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

Voltage	Option model	MKFT 115	MKFT 240	MKFT 720
480 V 3 60 Hz	with voltage and frequency converter	9020-0362	9020-0361	9020-0360
400 V 3 50 Hz	Standard	9020-0211	9020-0212	9020-0228

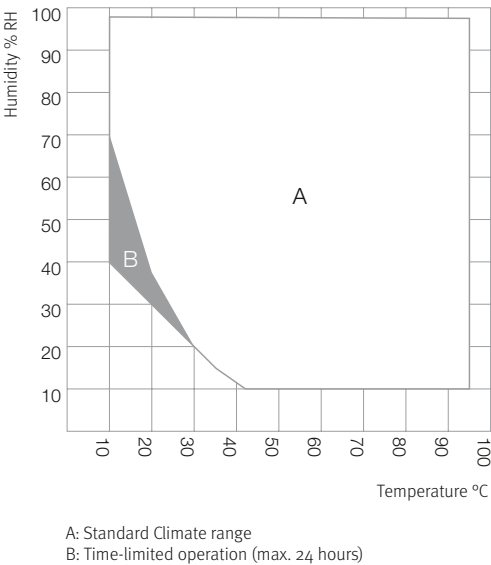
► You will find a selection of options, accessories and services suitable for each product on page 19

EXTRACT OF FULLFILLED STANDARDS

- DIN EN 60068-2-30: 2006-06
- DIN EN 60068-2-38: 2010-06
- DIN EN 60068-2-1: 2008-01
- MIL STD 331:2005-01
- DIN EN 60068-3-6:2002-12

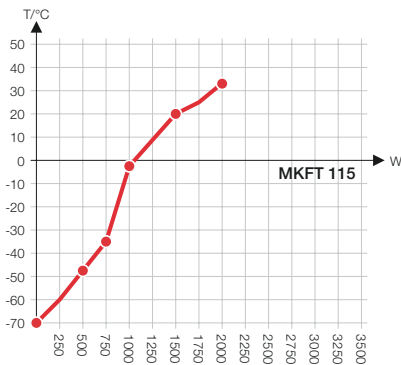
TEMPERATURE-HUMIDITY CHART

MKFT 115, MKFT 240, MKFT 720

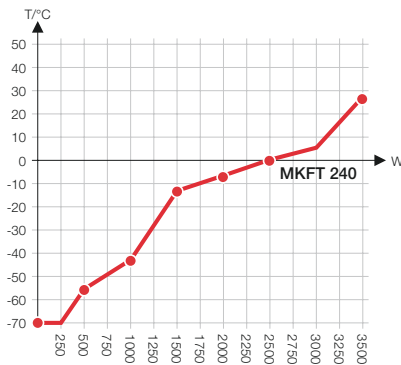


HEAT COMPENSATION

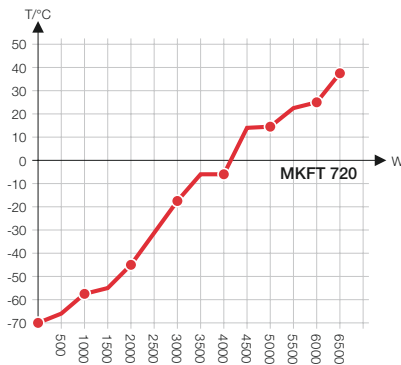
MKFT 115



MKFT 240

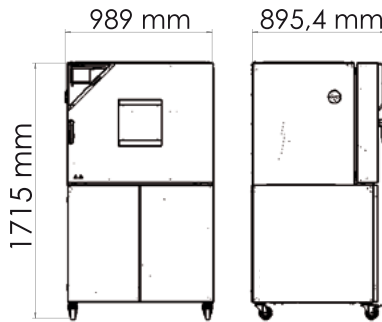


MKFT 720

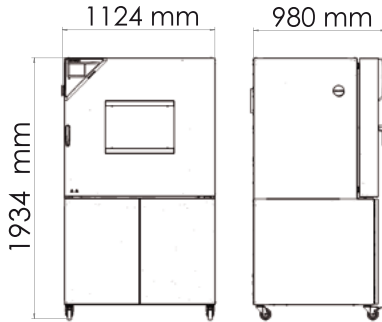


DIMENSIONS incl. fittings and connections [mm]

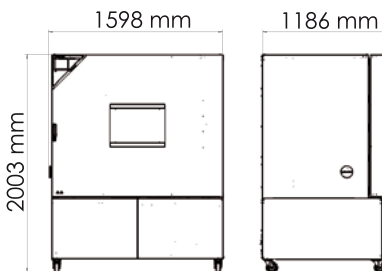
MKFT 115



MKFT 240



MKFT 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 MK, MKF, MKT, MKFT

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

Series MK, MKF, MKT, MKFT

Dry-air purge

Suitable for simulating a dry, cold climate. In the MKF and MKFT series with controlled humidity, the temperature-humidity chart is significantly expanded, while the option of simulating current automobile industry standards, such as PV 2005; PV 1200; PR 308.2, is also available.

Series MK, MKF, MKT, MKFT

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.

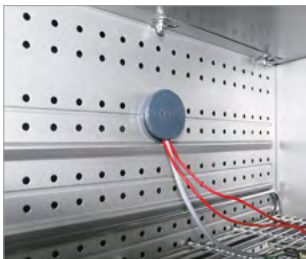
Series MK, MKF, MKT, MKFT

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 MK, MKF, MKT, MKFT

► All extras online go2binder.com/en-options



Access port with silicone plug



BINDER PURE AQUA Service



Dry-air purge



Services

BINDER products

CO₂ 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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