

# Constant climate chambers



Always the right climate

KBF-S ECO | KBF-S

KBF | KBF P | KBF LQC | KMF series



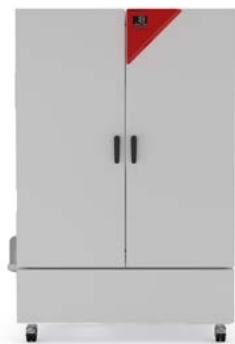


**BINDER**

14.8  
100  
10.0

## Series KBF-S ECO Solid.Line | with environmentally friendly thermoelectric cooling

Thanks to thermoelectric cooling technology with patented heat dissipation, the new KBF-S ECO climatic chamber is one of the most energy-efficient constant climate chambers on the market. The thermoelectric cooling technology means the KBF-S ECO series is also very quiet during operation.



Model KBF-S ECO 720

### BENEFITS

- Safe thanks to standard-compliant testing according to the ICH Q1A guideline, even with full load.
- Reliable thanks to failsafe operation without compromise.
- Smart, as a wide range of accessories makes it highly compatible for adaptation to specific customer requirements.
- Economical, as energy consumption is minimal thanks to optimized thermoelectric cooling.

### MAIN FEATURES

- Temperature range: 0 °C to +70 °C (max. 24 °C under ambient temperature)
- Humidity range: 10% to 80% RH
- APT.line™ preheating chamber technology
- Independent water supply via tank
- 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, including shelf carrier
- Access port with silicone plug Ø 30 mm, left

### AVAILABLE SIZES

Model	Interior volume [L]	Online data sheets
KBF-S ECO 240	247	› <a href="https://go2binder.com/en-KBF-S-ECO240">go2binder.com/en-KBF-S-ECO240</a>
KBF-S ECO 400	400	› <a href="https://go2binder.com/en-KBF-S-ECO400">go2binder.com/en-KBF-S-ECO400</a>
KBF-S ECO 720	700	› <a href="https://go2binder.com/en-KBF-S-ECO720">go2binder.com/en-KBF-S-ECO720</a>
KBF-S ECO 1020	1020	› <a href="https://go2binder.com/en-KBF-S-ECO1020">go2binder.com/en-KBF-S-ECO1020</a>

## OPTIONAL EQUIPMENT

### Access port with silicone plug

For introducing external measuring instruments. Large selection of different diameters and positions (left, right, or top)



### 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.



### 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.



### 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.



► All extras online [go2binder.com/en-options](http://go2binder.com/en-options)

## TECHNICAL DATA

Description	KBF-S ECO 240	KBF-S ECO 400	KBF-S ECO 720	KBF-S ECO 1020
<b>Measures</b>				
Interior volume [L]	247	400	700	1020
Net weight of the unit (empty) [kg]	146	192	267	322
Permitted load [kg]	100	120	150	150
Load per rack [kg]	30	30	45	45
Wall clearance back [mm]	100	100	100	100
Wall clearance sidewise [mm]	180	180	180	180
<b>Internal Dimensions</b>				
Width [mm]	650	650	973	973
Height [mm]	785	1200	1250	1250
Depth [mm]	485	390	576	836
<b>Housing dimensions not incl. fittings and connections</b>				
Width net [mm]	932	925	1254	1254
Height net [mm]	1461	1946	1925	1925
Depth net [mm]	796	796	885	1146
<b>Performance Data Temperature</b>				
Temperature range (max. 24 °C under ambient temperature) [°C]	–	–	0...70	0...70
Temperature range (max. 26 °C under ambient temperature) [°C]	–	0...70	–	–
Temperature range (max. 28 °C under ambient temperature) [°C]	0...70	–	–	–
Temperature variation at 40 °C [± K]	0.2	0.5	0.3	0.5
Temperature fluctuation at 40 °C [± K]	0.1	0.1	0.1	0.1
<b>Performance Data Climate</b>				
Temperature range (max. 24 °C under ambient temperature) [°C]	–	–	5...70	5...70
Temperature range (max. 26 °C under ambient temperature) [°C]	–	5...70	–	–
Temperature range (max. 28 °C under ambient temperature) [°C]	5...70	–	–	–
Temperature variation at 40 °C and 75 % RH [± K]	0.2	0.5	0.3	0.5
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]	0,3	0,3	0,3	0,4
<b>Electrical data</b>				
Nominal power (version 120V) [kW]	0.8	–	1.2	1.2
Nominal power (version 230V) [kW]	0.8	1.1	1.2	1.2
Nominal power (version 120 V) [kW]	–	1.1	–	–
<b>Fixtures</b>				
Number of shelves (std./max.)	2/9	2/15	2/15	2/15

## ORDERING INFORMATION [Art. No.]

**Further details:** Go to [www.binder-world.com](http://www.binder-world.com) > Search > Enter Article Number

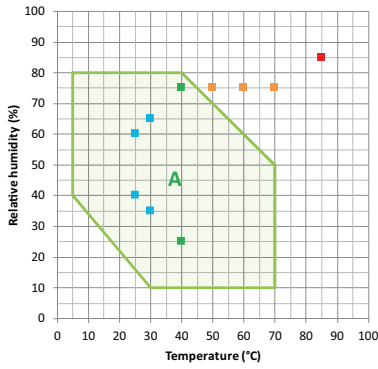
Voltage	Option model	KBF-S ECO 240	KBF-S ECO 400	KBF-S ECO 720	KBF-S ECO 1020
200...230 V 1~ 50/60 Hz	Standard	9020-0416	9020-0463	9020-0418	9020-0419
100...120 V 1~ 50/60 Hz	Standard	9020-0420	9020-0464	9020-0421	9020-0422

## EXTRACT OF FULLFILLED STANDARDS

- ICH Q1A(R2)

## TEMPERATURE-HUMIDITY CHART

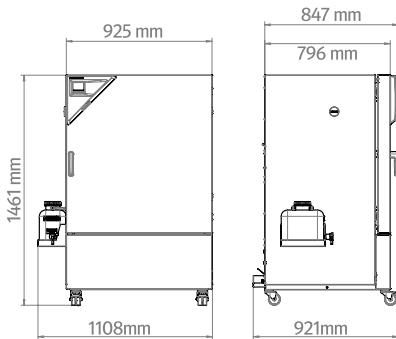
KBF-S ECO 240, KBF-S ECO 400, KBF-S ECO 720, KBF-S ECO 1020



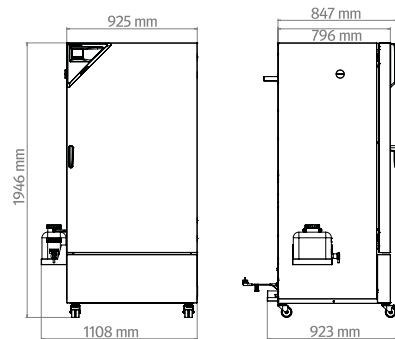
- ICH Long term stability testing
  - Accelerated stability testing
  - ICH Stress testing
  - Industrial THB testing (85/85)
- A: Guaranteed condensation-free range

## DIMENSIONS incl. fittings and connections [mm]

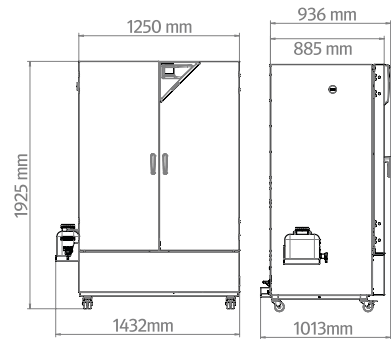
### KBF-S ECO 240



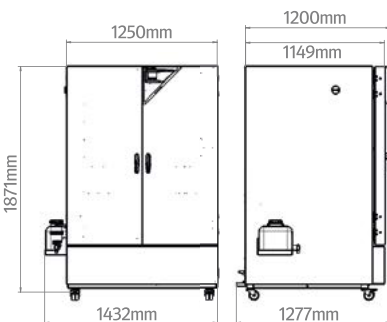
### KBF-S ECO 400



### KBF-S ECO 720



### KBF-S ECO 1020



## ORDERING INFORMATION OPTIONS

Designation	Description	KBF-S	KBF-S	KBF-S	KBF-S	Art. No.
		ECO 240	ECO 400	ECO 720	ECO 1020	
Access port with silicone plug	left					
	30 mm	•	•	•	•	8012-2072
	50 mm	•	•	•	•	8012-2079
	100 mm	•	•	•	•	8012-2077
	right					
	30 mm	•	•	•	•	8012-2071
	50 mm	•	•	•	•	8012-2078
	100 mm	•	•	•	•	8012-2076
	top					
	30 mm	•	•	•	•	8012-2073
	50 mm	•	•	•	•	8012-2074
	100 mm	•	•	•	•	8012-2075
Calibration certificate, expanded	for temperature and humidity; for extending the measurement in center of chamber to include another test value	•	•	•	•	8012-2066
Calibration certificate, temperature	temperature measurement incl. certificate and 27 measuring points at specified temperature	•	•	•	•	8012-2069
	temperature measurement incl. certificate, 15- 18 measuring points at specified temperature	•	•	•	•	8012-2068
	temperature measurement incl. certificate, 9 measuring points at specified temperature	•	•	•	•	8012-2067
Calibration certificate, temperature and humidity	Measurement in center of chamber at 25 °C / 60% RH or at specified test values	•	•	•	•	8012-2065
	temperature (according to DIN12880) and humidity measurement incl. certificate, 27 temperature measuring points and 1 humidity measuring point, at 25 °C / 60 % RH or at specified values	•	•	•	•	8012-2070
Door lock	lockable door handle	•	•	–	–	8012-2086
		–	–	•	•	8012-2087

## ORDERING INFORMATION ACCESSORIES

Designation	Description	KBF-S	KBF-S	KBF-S	KBF-S	Art. No.
		ECO 240	ECO 400	ECO 720	ECO 1020	
APT-COM™ 4 BASIC-Edition	for simple logging and documentation requirements with up to 5 networked units. 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. version 4, GLP edition	•	•	•	•	9053-0042
APT-COM™ 4 PROFESSIONAL-Edition	convenient unit and user management built on the BASIC edition. Suitable for networking up to 100 units. version 4, PROFESSIONAL edition	•	•	•	•	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
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					
	External, with magnetic holder	•	•	•	•	8012-1847

Designation	Description	KBF-S ECO 240	KBF-S ECO 400	KBF-S ECO 720	KBF-S ECO 1020	Art. No.	
<b>LED light bars</b>	Basic set consisting of 2 pieces, attachment material, control unit for max. 4 light strips, 100-240 V, 50/60 Hz						
	Basic set 300, length 30 cm	•	•	•	•	8012-1107	
	Basic set 500, length 50 cm	•	•	•	•	8012-1108	
	Basic set 900, length 90 cm	–	–	•	•	8012-1109	
	Expansion set consisting of 2 pieces, attachment material: clips. For expanding the basic set of light bars						
	Expansion set 300, length 30 cm	•	•	•	•	8012-1716	
	Expansion set 500, length 50 cm	•	•	•	•	8012-1717	
<b>pH-neutral detergent</b>	Expansion set 900, length 90 cm	–	–	•	•	8012-1718	
	concentrated, for gentle remove of residual contaminants; 1 kg	•	•	•	•	8012-2250	
<b>Qualification documents</b>	IQ/OQ documents – supporting documents for validation performed by customers, consisting of: IQ/OQ checklists incl. calibration guide and comprehensive unit documentation; parameters: temperature and humidity values						
	Digital in PDF format	•	•	•	•	7057-0002	
	Hard copy inside folder	•	•	•	•	7007-0002	
	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 and humidity values						
	Digital in PDF format	•	•	•	•	7057-0006	
<b>Rack</b>	stainless steel	Hard copy inside folder	•	•	•	7007-0006	
			•	•	–	–	8012-2050
			–	–	•	–	8012-2051
<b>Rack accessories</b>	fasteners (1 set of 4) for additional security of racks		–	–	•	8012-2052	
			•	•	•	•	8012-2280
<b>Rack, reinforced</b>	stainless steel, with fasteners (1 set of 4)		•	–	–	8012-0638	
			–	–	•	–	8012-0674
			–	–	–	•	8012-0968
<b>Shelf, perforated</b>	Stainless steel		•	•	–	–	8012-2163
			–	–	•	–	8012-2252
			–	–	–	•	8012-2254
<b>WLAN kit</b>	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	