KMF 720 (E5.2) - Environmental test chamber for constant climate

The KMF is designed for absolutely reliable stability tests and precise maintenance of constant climatic conditions. Its advanced reserve capacity and extremely broad climatic range are designed to meet any future requirements.

Performance features and equipment:

- Electronically controlled APT.line™ preheating chamber and refrigerating system assuring temperature accuracy and reproducible results
- Temperature range: -10 °C - 100 °C (14 °F - 212 °F) (without humidity)
- Temperature range: 10 °C - 90 °C (50 °F - 194 °F) (with humidity)
- Humidity range 10 % RH to 90 % RH
- MCS controller with 25 storable programs of 100 sections each for a maximum of 500 program segments
- Features:
  - User friendly LCD screen
  - Easy-to-read menu guide
  - Integrated electronic chart recorder
  - Variety of options for the graphic display of process parameters
  - Real time clock
- Electronically controlled humidification and dehumidification system with capacitive humidity sensor
- Heated doors, inner glass doors with sealing
- Independent adjustable temperature safety device class 3.1, providing full protection against chamber over-temperature, with visual and audible temperature alarm
- Access port with silicone plug Ø 30 mm (1.18 inch), left side
- Safety connection kit for water supply and drainage, including water hose, total length 6 m (19.7 ft.)
- Ethernet interface for use with optional GMP/GLP and FDA guideline 21 CFR Part 11 compliant APT-COM™ DataControlSystem software
- 1 stainless steel rack included
- BINDER test certificate

	KMF 720 (E5.2)
Exterior dimensions	
Width (mm/inch)	1249 / 49.2
Height (incl. castors) (mm/inch)	1924 / 75.8
Depth (mm/inch)	887 / 34.9
plus door handle, I-triangle, connection (mm/inch)	939 / 37.0
Wall clearance rear (minimum) (mm/inch)	100 / 3.9
Wall clearance side (minimum) (mm/inch)	100 / 3.9
Steam space volume (l/cu.ft.)	918 / 32.4
Number of doors	2
Number of inner glass doors	2
Interior dimensions	
Width (mm/inch)	970 / 38.2
Height (mm/inch)	1250 / 49.2
Depth (mm/inch)	576 / 22.7
Interior volume (l/cu.ft.)	698 / 24.6
Racks (standard/max.)	1 / 15
Load per rack (kg/lbs.)	45 / 99
Permitted total load (kg/lbs.)	150 / 331
Weight (empty) (kg/lbs.)	315 / 695
Temperature data (without humidity)	
Temperature range 1) (°C/°F)	-10 - 100 / 14 - 212
Average heating up time acc. to IEC 60068-3-5 (K/min.)	1.0
Average cooling down time acc. to IEC 60068-3-5 (K/min.)	0.4
Heating up time from -10 °C to 100 °C (14 °F - 212 °F) 2) (min.)	110
Cooling down time from 100 °C to -10 °C (212 °F - 14 °F) 2) (min.)	350
Max. heat compensation up to 25 °C / 77 °F (W)	400
Climatic data (with humidity)	
Temperature range 1) (°C/°F)	10 - 90 / 50 - 194
Temperature variation (spatial) 3) (± K)	0.2 - 1.0
Temperature fluctuation 3) (± K)	0.1 - 0.5
Humidity range (% RH)	10 - 90
Humidity fluctuation 3) (±% RH)	≤ 2
Max. heat compensation at 25 °C (77 °F) / 90% RH (W)	150
Dew point temperature range (°C/°F)	5 - 80 / 41 - 176
Electrical data	
Housing protection acc. to EN 60529	IP 20
Nominal voltage (±10 %) 50 / 60 Hz (V)	200-240
Nominal power at 240 V (kW)	3.1
Energy consumption 4) at 85 °C (104 °F) / 85% RH (W)	1050
Noise level (dB (A))	53

2. We recommend the BINDER Pure Aqua Service for longer maintenance intervals, regardless of water quality.

3. Demineralized or deionized water available at the customers location.

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1) Lower values are valid up to an ambient temperature of max. 25 °C (77 °F)
2) up to 98 % of the set value
3) depending on the set-point
4) Use this value for dimensioning air condition systems
All technical data are specified for units with standard equipment at an ambient temperature of 25 °C and a voltage fluctuation of ±10 %. The temperature data are determinated in ccordance to factory standard following DIN 12880 respecting 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 alter technical specifications at all times.

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BINDER Data Logger kits

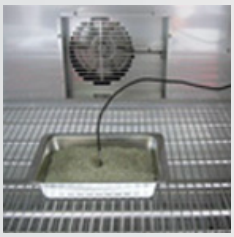
The new BINDER Data Logger kits for temperature and humidity can record temperature and humidity data of BINDER equipment. This finely tuned product solution also contains useful accessories for mounting the Logger on the BINDER unit, including cable bushings and a sensor mounting bracket.

BINDER Pure Aqua Service

Our efficient, flexible water purification system delivers top water quality and extends the maintenance period. Special feature: Our system uses a disposable purification cartridge and also has a water quality indicator.

External fresh water supply set

External fresh water supply set consits of fresh and waste water canister, cabling and pump.



Specimen temperature measurement

Additional flexible PT 100 temperature sensor for precise temperature measurement of the specimen with digital temperature display. Recording of measured data possible via Ethernet or RS 422 interface.

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	KMF 720 (E5.2)
Access port with silicone plugs, 30 mm (1.18 inch), 50 mm (1.97 inch), 100 mm (3.94 inch)	O
Securing elements for additional fastening of racks (1 set of 4 pieces)	O
Additional PT 100 temperature sensor, flexibly installed, with external connection, including LEMO connector (3 - pin)	O
RS 422 interface	O
External fresh water supply set consits of fresh and waste water canister, cabling and pump	O
BINDER PURE AQUA SERVICE consisting of disposible cartridge, cabling and measuring device	O
Disposable cartridge for BINDER PURE AQUA SERVICE	O
Keyboard Lock	O
Temperature precision measurement according to DIN 12880 and 9-point humidity measurement / factory standard with measurement log and certificate, measured at 20 °C (68 °F) / 60% RH or at specified values	O
Calibration certificate for temperature and humidity. Measurement in the center at 25 °C (77 °F) / 60 % RH or at specified values	O
Extension to factory calibration certificate for temperature and humidity. Each additional measurement at an additional measuring point or set of values	O
Data Logger Kit TH 100: For the continuous temperature and humidity recording of -40 °C (-40 °F) to 100 °C (212 °F) / 0% to 100 % RH. Kit includes 1 data logger, 1 attachable combined humidity/temperature sensor with 2 m extension cable and 1 fixture for the connection at the BINDER unit	O
Data Logger Kit TH 100/70: With two attachable combined sensors. One for the continuous temperature and humidity recording of -40 °C (-40 °F) to 100 °C (212 °F) / 0% to 100 % RH. Second one at the data logger for recording the environmental conditions of -40 °C (-40 °F) to 70 °C 158 °F) / 0% to 100 % RH. Kit includes 1 data logger, 2 attachable combined humidity/temperature sensors with 2 m extension cable and 1 fixture for the connection at the BINDER unit	O
Data Logger Kit T 220: For the continuous temperature recording of -90 °C (-130 °F) to 220 °C 428 °F). Kit includes 1 data logger, PT 100 sensor with 2 m Teflon extension cable and 1 fixture for the connection at the BINDER unit	O
Data Logger Software: Configuration und evaluation software for all BINDER Data Logger Kits, incl. data cable	O
Rack, stainless steel	O
Reinforced rack, stainless steel, with 1 set of securing elements (4 pieces) max. load 70 kg (154 lbs.).	O
Shelf, perforated, stainless steel	O
Reinforced inner chamber, including 2 Reinforced racks, maximum total load 250 kg (552 lbs.), max. load per rack 70 kg (154 lbs.)	O
Interior lighting (30 W)	O
Door Lock	O
Temperature safety device, Class 3.3 (DIN 12880) with optical alarm	O
4-20 mA analog output for temperature and humidity measurements (e.g. chart recorder connection), with 6 - pin DIN socket. Outputs are adjusted automatically as the controller is adjusted	O

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