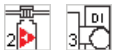


MKF 720 (E3) - Environmental simulation chamber for complex alternating climatic profiles up to 5 K/min

The MKF series is ideally suited for all tests in accordance with current temperature and climatic test standards based on DIN and IEC standards. The required temperature and humidity values can be attained rapidly and maintained accurately, even under extreme conditions. The unparalleled ease of operation as well as extensive standard features provide that 'little extra' in handling.



► Performance features and equipment:

- Electronically controlled APT.line™ preheating chamber assuring temperature accuracy and reproducible results
- Temperature range without humidity -40 °C to 180 °C (-40 °F to 356 °F), with humidity 10 °C to 95 °C (50 °F to 203 °F)
- Humidity range 10 % RH to 98 % RH
- MCS controller with 25 storable programs of 100 sections each for a maximum of 500 program segments
 - User-friendly LCD display
 - 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 and pressurized steam humidification
- Integrated water storage tank
- Heated viewing window with interior illumination
- Programmable condensation protection for test material
- Adjustable ramp functions via program editor
- 230 V power socket on the right-side operating panel
- Temperature safety device, Class 2 (DIN 12880)
- 4 potential-free relay outputs that can be activated via MCS controller
- Ethernet interface for use with optional GMP/GLP and FDA guideline 21 CFR Part 11 compliant APT-COM™ DataControlSystem software
- 2 access ports Ø 80 mm (3.15 inch), right and left side
- 1 stainless steel rack included
- 4 castors (with 2 brakes)
- BINDER test certificate



MKF 720 (E3)

| Exterior dimensions | |
|---|-----------------------|
| Width (18 mm/0.7 in.) for access port of with plug in-cluded) (mm/inch) | 1577 / 62 |
| Height (incl. castors) (mm/inch) | 2005 / 78.9 |
| Depth, excl. 54 mm (2 inch) for door handle (mm/inch) | 1184 / 46.6 |
| Wall clearance rear (mm/inch) | 100 / 3.9 |
| Wall clearance side (mm/inch) | 160 / 6.3 |
| Viewing window width (mm/inch) | 508 / 20.0 |
| Viewing window height (mm/inch) | 300 / 11.8 |
| Number of doors | 1 |
| Interior dimensions | |
| Width (mm/inch) | 1199 / 47.2 |
| Height (mm/inch) | 1020 / 40.2 |
| Depth (mm/inch) | 600 / 23.6 |
| Interior volume (l/cu.ft.) | 730 / 25 |
| Racks (number standard/max.) | 1 / 11 |
| Load per rack (kg/lbs.) | 40 / 88 |
| Permitted total load (kg/lbs.) | 120 / 265 |
| Weight (empty) (kg/lbs.) | 590 / 1301 |
| Temperature data (without humidity) | |
| Temperature range (°C / °F) | -40 - 180 / -40 - 356 |
| Temperature fluctuation without humidity (± °C) 1) | 0.1 - 0.7 |
| Temperature variation without humidity (± °C) 1) | 0.5 - 2.0 |
| Average heating rate acc. IEC 60068-3-5 (K/min.)2) | 4.5 |
| Average cooling rate acc. IEC 60068-3-5 (K/min.)2) | 5.0 |
| Heating up time from -40 °C up to 180 °C (Min.)2) | 58 |
| Cooling down time from 180 °C up to -40 °C (Min.)2) | 75 |
| Heat compensation, max. (W)4) 5) | 6500 |
| Climatic data | |
| Temperature range (°C/°F) | 10 - 95 / 50 - 203 |
| Humidity range (% RH) | 10 - 98 |
| Humidity fluctuation (± % RH) 2) 3) | 0.5 - 2.5 |
| Dew point temperature range (°C) | 5 - 94 |
| Heat compensation, max. (W) 4) | 1000 |
| Electrical data | |
| Housing protection acc. to EN 60529 | IP 20 |
| Nominal voltage (±10 %) 50 / 60 Hz (V) | 400 3N~ |
| Nominal power (W) | 9500 |
| Noise level (ca. dB(A)) | 65 |



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.

- 1) dependend upon set value
- 2) up to 98% of the set value
- 3) upon door opening > 1.5 % RH, recovery time approx. 20 min.
- 4) Temperature range 25 °C to 95 °C (77 °F to 203 °F) and < 90% RH

All technical data is specified for units with standard equipment at an ambient temperature of 25 °C and a voltage fluctuation of ± 10 %. The temperature data is determinated in accordance to factory standard following DIN 12880 respecting the recommended wall clearances of 10 % of the height, width and depth of the inner chamber. All indications are average values, typical for units produced in series. We reserve the right to alter technical specifications at all times.



▶ Notch-type access port in door

Provide easy connection of cables to test specimens and facilitate loading and unloading of the chamber. Doors have access ports measuring 100 x 35 mm (4 x 1.4 inches), which can be sealed with the included silicon plugs.



▶ Reinforced rack

To ensure safe and stable storage of heavy test specimens. Stainless steel, with 1 set of securing elements (4 pieces), max. load 70 kg (154 lbs.).



▶ BINDER Pure Aqua Service

Our efficient, flexible 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.

▶ 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.

**MKF 720
(E3)**

| | |
|---|-----------------------|
| Access port with silicone plugs, 30 mm (1.18 inch), 50 mm (1.97 inch), 100 mm (3.94 inch), 125 mm (4.72 inch) | <input type="radio"/> |
| Analog temperature output, 4 - 20 mA, with 6 - pin DIN socket (output not adjustable) | <input type="radio"/> |
| Securing elements for additional fastening of racks (1 set of 4) | <input type="radio"/> |
| Lockable door | <input type="radio"/> |
| Additional measuring channel for digital display of specimen temperature, with flexible PT 100 temperature sensor. Measuring data recorded through device interface | <input type="radio"/> |
| Temperature safety device for preventing too low and high temperatures, class 2 | <input type="radio"/> |
| RS 422 interface | <input type="radio"/> |
| Temperature measurement acc. to DIN 12880-2 and 9 point humidity measurement/factory standard with measuring protocol and certificate at 25 °C / 60 % RH or at specified values | <input type="radio"/> |
| Calibration certificate for temperature and humidity. Measurement in the center at 25 °C / 60 % RH or at specified values | <input type="radio"/> |
| Extension for calibration certificate for temperature and humidity. Measurement at each additional measuring point or temperature | <input type="radio"/> |
| BINDER PURE AQUA SERVICE consisting of disposable cartridge, cabling and pump | <input type="radio"/> |
| Data Logger Kit TH 100/70: With two attachable combined sensors for temperature and humidity recording | <input type="radio"/> |
| Data Logger Kit TH 100: With one attachable combined sensor for temperature and humidity recording | <input type="radio"/> |
| Data Logger Kit T 220: With TP 100 sensor for temperature recording | <input type="radio"/> |
| Data Logger Software | <input type="radio"/> |
| Rack, stainless steel | <input type="radio"/> |
| Reinforced rack, stainless steel, with 1 set of securing elements (4 pieces) (max. load 70 kg / 154 lbs.) | <input type="radio"/> |
| Shelf, perforated, stainless steel | <input type="radio"/> |
| Notch - type access port in door, 100 x 35 mm (4 x 1.4 inch) | <input type="radio"/> |