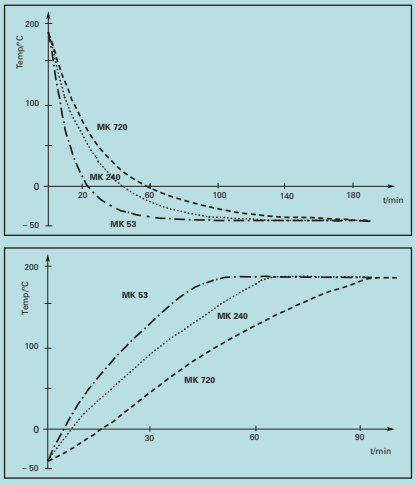
Precision cold/heat test chamber

MK series: the better solution for the standard testing range

The cold/heat test chambers in the MK series fulfil the highest demands for precision and performance, as standard. Thus, due to their price, they also provide the alternative to expensive individual solutions for most of the tasks in material testing or for thermal stress, stability and durability tests. With the new screen controls, Binder once again serves as a model with regard to precision, dynamics and functionality. Equipped as standard with a multitude of operating functions, additional recorder and warning functions, they offer extremely easy handling and meet the highest standards of safety and documentation. The electronic compressor control allows the highest temporal temperature accuracies over the entire temperature range. The insulation materials and the refrigerant used are of course CFC-free. Due to the broad temperature range of the MK series of – 40° C to + 180° C, its highly efficient refrigerating unit and powerful air circulation, it is optimally suited to the most varied range of tasks.

▶ **Operative ranges:**
Electronics/semi-conductor industry; testing laboratory, quality assurance, automotive industry suppliers as well as transport/transport subcontractors, aircraft industry, mechanical engineering, building materials industry



Cooling-down and heating-up rate

▶ **Performance features:**
- –40.0 °C to 180 °C
- Colour screen control with 25 programs each with 100 sections
- Memory capacity of controller: max. 500 program segments
- High capacity air turbine
- Large, heated viewing window in the door, internal lighting
- Condensation protection for test material
- Air-cooled, hermetically sealed refrigerating unit
- RS 422 communication interface for the standard software APT-COM® DataControlSystem
- Calibrations and validations possible
- Inner chamber volume in litres: 53; 240; 720

▶ **Equipment:**
- Access port Ø 80 mm top (series 53 and 240) or 2 access ports, on the left and right sides (series 720)
- 2 shelves, stainless steel
- Safety device (TWB) class 2 (DIN 12880)

Technical Data

BINDER
Best conditions for your success

MK series	MK 53	MK 240	MK 720
Exterior dimensions			
Width (mm)	740	1140	1341
Height (inclusive feet/castors) (mm)	1222	1606	1998
Depth, excl. 45 mm for door handle (mm)	740	909	987
Viewing window width (mm)	280	500	370
Viewing window height (mm)	280	360	770
Interior dimensions			
Width (mm)	402	800	1000
Height (mm)	402	600	1168
Depth (mm)	330	500	600
Interior volume (l)	53	240	700
Shelves (number standard/max)	2/5	2/6	2/14
Load per shelf (kg)	15	30	40
Permitted total load (kg)	40	70	1200
Temperature range (°C)	–40* to + 180	–40* to + 180	–40* to + 180
Temperature variation			
– 40 °C (± °C)	0.8	1	1
– 10 °C (± °C)	0.7	0.8	1
0 °C (± °C)	0.4	0.7	1
+ 20 (± °C)	0.8	1.6	1.9
+ 70 °C (± °C)	1.2	0.8	1
+ 150 °C (± °C)	2.0	2.3	2.5
Temperature fluctuation (± °C)	0.3	0.3	0.3
Mean heating rate acc. IEC 60068-3-5 (K/min.)	5.2	4.2	3
Mean cooling rate acc. IEC 60068-3-5 (K/min.)	5.0	2.5	2.3
Nominal voltage (+ 10 %) 50 Hz (V)	230 (1N)	400 (3N)	400 (3N)
Nominal power (W)	2600	3500	6000
Noise level (ca. dB[A])	59	62	65
Optional			
Temperature safety device for preventing too low and high temperatures	●	●	●
Stainless steel shelves	●	●	●
Lockable door	●	●	●
Analogue output Temperature	●	●	●
Connection for low tention (8-phase)	●	●	●
Various access ports at top or right (Ø 50, 80 mm)	–	●	–

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 accordance to DIN 12880, part 2 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.

* Valid at an ambient temperature up to 25 °C

[1)] These energy consumption values can be used upon calculation of air conditioning systems.

● Optional

– not available

Your dealer: