

MKF series: Environmental simulation chambers for complex alternating climatic profiles

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:

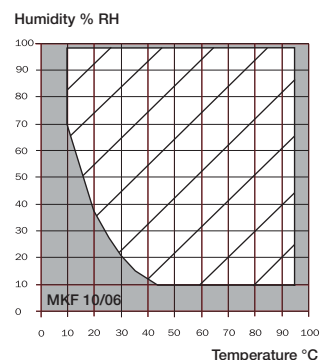
- Electronically controlled APT.line™ preheating chamber technology
- Temperature range without humidity -40 °C to 180 °C (-40 °F to 356 °F), with humidity 10 °C to +95 °C (50 °F to 203 °F)
- Humidity range 10 % RH to 98 % RH
- MCS controller with 25 storable programs of 100 sections each for a maximum of 500 program segments
 - User-friendly LCD 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
- Integrated water reservoir for demineralized water
- Heated viewing window with interior lighting
- Variable adjustable high-performance fan
- Programmable condensation protection for test material
- Adjustable ramp functions via program editor
- Environmentally friendly refrigerant R 404a
- 230 V power socket on the right-side operating panel
- Independent adjustable temperature safety device, Class 2 (DIN 12880)
- 4 potential-free relay outputs that can be activated via MCS controller
- Ethernet or RS 422 interface for communication software APT-COM™ DataControlSystem
- Access port, Ø 50 mm (1.9 inch) left side (MKF 240) and Ø 80 mm (3.1 inch) left and right sides (MKF 720)
- 2 stainless steel shelves
- BINDER test certificate





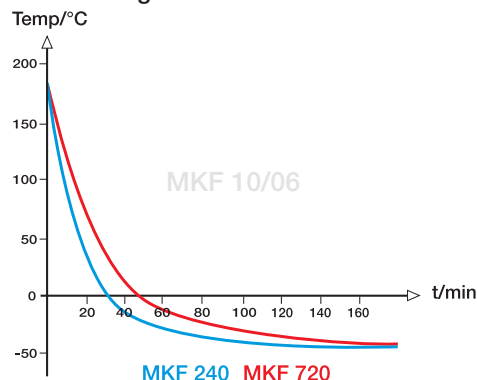
	MKF 240	MKF 720
▶ Exterior dimensions		
Width (mm/inch)	1168 / 45.9	1381 / 54.4
Height (incl. feet/castors) (mm/inch)	1570 / 61.8	1997 / 78.6
Depth, excl. 53 mm (2.0 inch) for door handle (mm/inch)	950 / 37.4	1038 / 40.9
Wall clearance (mm/inch)	160 / 6.3	160 / 6.3
Viewing window width (mm/inch)	508 / 20.0	360 / 14.2
Viewing window height (mm/inch)	300 / 11.8	760 / 29.9
Number of doors	1	1
▶ Interior dimensions		
Width (mm/inch)	773 / 30.4	1000 / 39.4
Height (mm/inch)	584 / 23.0	1168 / 46.0
Depth (mm/inch)	462 / 18.2	600 / 23.6
Interior volume (l/cu.ft.)	208 / 8.6	700 / 25.1
Shelves (number standard/max.)	2/6	2/14
Load per shelf (kg/lbs.)	30 / 66	30 / 66
Permitted total load (kg/lbs.)	70 / 155	120 / 265
Weight (empty) (kg/lbs.)	350 / 773	540 / 1192
▶ Temperature data		
Permissible ambient temperature range(°C / °F) ²⁾	18-32/64.4-89.6	18-25/64.4-77
Temperature range (°C / °F)	-40* to 180/ -40* to 356	-40* to 180/ -40* to 356
Temperature fluctuation without humidity (± °C)	0.1 to 0.4	0.1 to 0.4
Temperature variation without humidity (± °C)	0.5 to 2.0	0.5 to 2.5
Average heating rate acc. IEC 60068-3-5 (K/min.)	4.5	3.0
Average cooling rate acc. IEC 60068-3-5 (K/min.)	3.5	3.0
Heating up time from -40 °C up to +180 °C (Min.)	48	85
Cooling down time from +180 °C up to -40 °C (Min.)	122	180
Heat compensation, max. (W)	2500	2500
▶ Climatical data		
Temperature range (°C / °F)	10 to 95 / 50 to 203	10 to 95 / 50 to 203
Humidity range (% RH)	10 to 98	10 to 98
Humidity fluctuation (± % RH)	0.5 to 2.5	0.5 to 2.5
Dew point temperature range (°C)	5 to 94	5 to 94
Heat compensation ¹⁾ , max. (W)	300	300
▶ Electrical data		
Housing protection acc. to EN 60529	IP 20	IP 20
Nominal voltage (± 10 %) 50/60 Hz (V)	400 (3N)	400 (3N)
Nominal power (W)	6000	8000
Noise level (ca. dB(A))	62	65
Individually tested in compliance with VDE 0113	✓	✓

Temperature-humidity chart

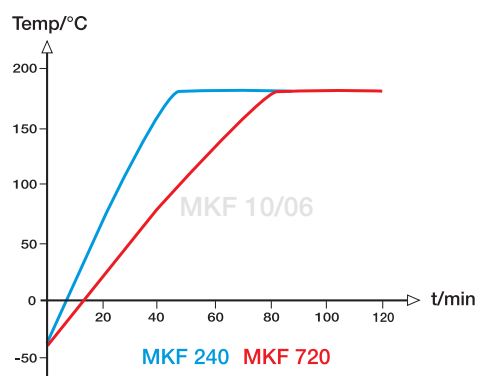


The hatched area indicates the control range of temperature and relative humidity.

Cooling-down rate MKF 240/720



Heating-up rate MKF 240/720



¹⁾Temperature range 25 °C to 95 °C (77 °F to 203 °F) and < 90 % RH

²⁾ Recommended ambient temperature 25 °C/77°F

* Valid at an ambient temperature up to 25 °C (77 °F)

All technical specification are specified for units with standard equipment at an ambient temperature of 25 °C (77 °F) and a voltage fluctuation of ±10 %. The temperature data are determined in accordance to factory standard following 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.