

## Heating/Test incubators

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9.868 022

### Constant Climate Chambers HPP

They are simply unbeatable in energy efficiency. Furthermore, as constant climate chambers HPP have a very long maintenance free service life, they are perfectly suited for stability tests, storage in controlled environments and conditioning. The high precision temperature control as well as the active humidification and dehumidification were particularly adapted to the ICH guidelines, option Q1A, for stability tests.

Memmert

- LED light module for sizes 110 to 750 (as an option): dimmable LED light in three alternative colour temperatures (cold white light, warm white light or cold white and warm white light, dimmable in steps of 1 %)
  - Heating and cooling seamlessly with one system thanks to Peltier technology
- Almost vibration-free and extremely quiet

#### Model variant TwinDISPLAY: ControlCOCKPIT with two colour displays

You can find a detailed description of the "TwinDISPLAY" model at [www.memmert.com](http://www.memmert.com)

#### Specifications

Working temperature range sizes 110 - 1060: without light, without humidity:	0 (at least 20 °C below ambient) to +70 °C
without light, with humidity:	+5 °C (at least 20 °C below ambient) to +70 °C
Working temperature range sizes 110 - 750: with light, without/with humidity:	+15 to +40 °C
Setting temperature range sizes 1400 - 2200: without light, without/with humidity:	+15 °C (at least 10 °C below ambient) to +60 °C
Setting accurate temperature:	0.1 °C
Setting ranges humidity:	
Sizes 110 - 1060: without light	10 to 90 % rh
Size 1400 - 2200: without light	10 to 80 % rh
Sizes 110 - 750: with light	10 to 85 % rh
Setting accurate humidity:	0.5 % rh
Power supply:	230 V, 50/60 Hz

Type	Nom. capacity	Max. grids	Included grids	Internal dimensions (W x D x H) mm	External dimensions (W x D x H) mm	Rated capacity kW	Net weight kg	PK	Cat. No.
	L								
HPP110	108	5	2	560 x 400* x 480	745 x 656** x 864	0.65	77	1	9.868 021
HPP260	256	9	2	640 x 500* x 800	824 x 756** x 1183	0.92	122	1	9.868 022
HPP410	384	14	2	640 x 500* x 1200	824 x 756** x 1720	1.30	160	1	6.312 191
HPP750	749	14	2	1040 x 600* x 1200	1224 x 856** x 1720	1.50	208	1	9.868 023
HPP1060	1060	14	2	1040 x 850* x 1200	1224 x 1107** x 1720	1.60	260	1	6.272 235
HPP1400	1360	28	4	1250 x 750* x 1450	1435 x 1007** x 1913	3.10	450	1	6.286 315
HPP2200	2140	42	6	1972 x 750* x 1450	2157 x 1007** x 1913	3.50	493	1	6.312 160

\* Less 10 mm for fan-Peltier

\*\*Depth without door handle, please add 56mm

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### Options and accessories for constant climate chamber HPP

#### Light module cold white 6.500 K:

LED strips arranged on the side walls of the interior, 10 for model 110; 14 for models 260, 410 and 750; programme controlled dimming from 0 to 100 % (in 1 % steps); ramp programming in combination with temperature and humidity

Memmert

#### Light module cold white 6.500 K + warm white 2.700 K:

LED light strips - 10 strips for model 110; 14 strips for model 260, 410 and 750 (5 resp. 7 alternating cold white light strips and 5 resp. 7 warm white light strips); on the side walls of the interior, programme controlled dimming from 0 to 100 % (in 1 % steps); ramp programming in combination with temperature and humidity

Type	Description	For Volume l	PK	Cat. No.
T7	Light module cold white 6,500 kelvin	110	1	9.868 024
T7	Light module cold white 6,500 kelvin	260	1	9.868 025
T7	Light module cold white 6,500 kelvin	410/750	1	9.868 026
T8	Light module cold white 6,500 kelvin + warm white 2,700 kelvin	110	1	9.868 027
T8	Light module cold white 6,500 kelvin + warm white 2,700 kelvin	260	1	9.868 028
T8	Light module cold white 6,500 kelvin + warm white 2,700 kelvin	410/750	1	9.868 029
E20165	Stainless steel grid	110	1	6.232 433
E28891	Stainless steel grid	260/410	1	9.537 204
E20182	Stainless steel grid	750	1	6.222 688
B41251	Stainless steel grid	1060	1	6.312 988
B38955	Stainless steel grid	1400/2200	1	4.663 195
B00325	Perforated stainless steel shelf	110	1	9.867 707
B29725	Perforated stainless steel shelf	260/410	1	6.262 685
B00328	Perforated stainless steel shelf	750	1	6.266 306
B32549	Perforated stainless steel shelf	1060	1	6.310 098

Further accessories can be found in our online shop.

### Climate Chambers ICHeco



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Climate-friendly and powerful: the ICHeco climate chamber for the stability testing of pharmaceuticals, cosmetics or food works with environmentally-friendly CO<sub>2</sub> (R744) as refrigerant. No icing, no drying out of samples, no dehumidification of the working chamber. Compared to appliances with refrigerant R134a, it scores with faster cooling-down times. In the ICHeco L climate chamber, stability tests in accordance with ICH guidelines Q1B, option 2, can be performed, thanks to an illumination unit. Fluorescent lights with cold white light (daylight: light colour 865, 6.500 K) and UV radiation in the spectral range of 320 - 400 nm. Daylight and UV light comply with standard illuminant D65.

**Model variant TwinDISPLAY: ControlCOCKPIT with two colour displays**

You can find a detailed description of the "TwinDISPLAY" model at [www.memmert.com](http://www.memmert.com)

Different variants of ICHeco:  
 ICHeco with humidity control  
 ICHeco L with humidity control and light



9.538 024

**Specifications**

Working temperature range with humidity and/or light (ICHeco/ICHeco L):	+10 °C to +60 °C
Working temperature range without humidity (ICHeco):	-10°C to +60°C
Working temperature range without humidity (ICHeco L):	0 °C to +60 °C
Setting temperature range ICHeco:	-10 to +60 °C
Setting temperature range ICHeco L:	0°C to +60°C
Setting accuracy temperature:	0.1 °C
Setting range humidity:	10 to 80 % rh
Setting accuracy humidity:	0.5 % rh
Power supply:	230 V, 50/60 Hz

Type	Nom. capacity	Max. grids	Included grids	Internal dimensions (W x D x H) mm	External dimensions (W x D x H) mm	Rated capacity kW	Net weight kg	PK	Cat. No.
L									
ICH110eco	108	5	2	560 x 400* x 480	745 x 585** x 1233	1.35	114	1	6.314 847
ICH260eco	256	9	2	640 x 500* x 800	824 x 685** x 1552	1.35	165	1	9.538 024
ICH750eco	749	14	2	1040 x 600* x 1200	1224 x 785** x 1950	1.35	254	1	9.538 025
ICH110Leco	108	5	2	560 x 400* x 480	745 x 585** x 1233	1.45	114	1	6.314 850
ICH260Leco	256	9	2	640 x 500* x 800	824 x 685** x 1552	1.45	165	1	9.538 026
ICH750Leco	749	14	2	1040 x 600* x 1200	1224 x 785** x 1950	1.55	254	1	9.538 027

\* Less 33 mm for fan  
 \*\*Depth without door handle, please add 56 mm

**Further products can be found in our online shop.**

### Humidity Chambers HCP



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The Memmert humidity chamber HCP - This climate chamber offers a full range of comfort, reliability and safety. This humidity chamber is ideally suited for environmental testing, environmental simulation, accelerated service life tests and 85/85 tests according to IEC 60068-2-67 and IEC 60068-2-78.

The active humidity control is the guarantee for ideal homogeneity of temperature and humidity as well as for short recovery times after opening the door. In combination with heating on all six sides, including heated inner glass door, it also minimises vaporisation in the interior and thus the risk of condensed water dripping onto the test object. An aluminium thermal conductive layer supports optimum temperature distribution and serves as a heat accumulator in case of a temporary power failure.

**Model variant TwinDISPLAY: ControlCOCKPIT with two colour displays**

You can find a detailed description of the "TwinDISPLAY" model at [www.memmert.com](http://www.memmert.com)



4.662 063

**Specifications**

Setting range active humidity control:	20 to 95 % rh
Setting accurate humidity:	0.5 % rh
Working temperature range:	at least 7 °C above ambient up to +90 °C
Setting temperature range:	+18 °C to +90 °C
Setting accurate temperature:	0.1 °C
Power supply:	230 V, 50/60 Hz

Type	Nom. capacity	Max. grids	Included shelves	Internal dimensions (W x D x H) mm	External dimensions (W x D x H) mm	Rated capacity kW	Net weight kg	PK	Cat. No.
L									
HCP50	56	5	1	400 x 330* x 425	559 x 521** x 795	1.52	55	1	4.662 063
HCP105	107	6	2	560 x 400* x 480	719 x 591** x 850	1.72	75	1	4.662 064
HCP150	156	10	2	560 x 400* x 700	719 x 591** x 1070	1.80	90	1	4.662 065
HCP240	241	12	2	600 x 500* x 810	759 x 691** x 1180	1.84	110	1	4.662 066

\* Less 35 mm for fan  
 \*\*Depth without door handle, depth of door handle 56 mm

**Suitable accessories can be found in our online shop.**

## Heating/Test incubators

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### 1 Constant climate chambers, KBF/KMF series

For long-term stable temperature/humidity simulations in one chamber.  
The constant climate chambers are ideal for norm-compliant work according to ICH guidelines and work independently of the water supply.

BINDER

**KBF Series:** Constant climate chambers with large temperature range:

0 °C to 70 °C and humidity range: 10 % RH to 80 % RH.

**KMF Series:** Ideal for demanding stress tests, e.g. at 85 °C and 85 % RH.

Temperature range: -10 °C to 100 °C and humidity range 10 % RH to 98 % RH.

**Equipment:**

- Electronically controlled APT.line™ preheating chamber with cooling system
- Inner chamber made of stainless steel
- Intuitive touchscreen controller with time-segment and real-time programming with internal data recording
- Humidity regulation with capacitive humidity sensor and vapor humidification
- Inner glass door with seal
- Independent temperature safety device class 3.1 (DIN 12880) with optical and audible temperature alarm
- Avoidance of glass corrosion by special TIMELESS coating
- Access port with silicone plug diam. 30 mm, left side
- Door heating
- Ethernet interface for communication software APT-COM™ DataControlSystem
- Internal data logger, measured values can be read out in open format via USB
- Power supply 200 ... 230 V, 50/60 Hz

Type	Internal volume litres	External dimensions (W x D x H) mm	Internal dimensions (W x D x H) mm	PK	Cat. No.
KBF 115	102	880 x 650 x 1050	600 x 351 x 483	1	6.270 830
KBF 240	247	925 x 800 x 1460	650 x 485 x 785	1	4.661 323
KBF 720	700	1250 x 890 x 1925	973 x 576 x 1250	1	6.291 134
KBF 1020	1020	1250 x 1145 x 1925	976 x 836 x 1250	1	4.661 324
KMF 115	102	880 x 650 x 1050	600 x 351 x 483	1	6.287 692
KMF 240	247	930 x 800 x 1465	650 x 485 x 785	1	4.661 325
KMF 720	700	1250 x 890 x 1925	973 x 576 x 1250	1	4.661 326

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### 2 Constant climate chambers, KBF P/KBF LQC



BINDER

For long-term stable temperature/humidity simulations in one chamber.  
The constant climate chambers are ideal for norm-compliant work according to ICH guidelines and work independently of the water supply.

**KBF P Series:** Constant climate chambers with ICH-compliant lighting and variably positionable light cassettes.

**KBF LQC Series:** Constant climate chambers with ICH-compliant light source and patented light dose control for UV-A and VIS. Temperature range: 0 °C to 70 °C and humidity range: 10 % RH to 80 % RH.

**Equipment:**

- Electronically controlled APT.line™ preheating chamber with cooling system
- Inner chamber made of stainless steel
- Intuitive touchscreen controller with time-segment and real-time programming with internal data recording
- Humidity regulation with capacitive humidity sensor and vapor humidification
- Inner glass door with seal
- Independent temperature safety device class 3.1 (DIN 12880) with optical and audible temperature alarm
- Avoidance of glass corrosion by special TIMELESS coating
- Access port with silicone plug diam. 30 mm, left side
- Door heating
- Ethernet interface for communication software APT-COM™ DataControlSystem
- Internal data logger, measured values can be read out in open format via USB
- Power supply 200 ... 230 V, 50/60 Hz

Type	Internal volume litres	External dimensions (W x D x H) mm	Internal dimensions (W x D x H) mm	PK	Cat. No.
KBF P 240	247	925 x 800 x 1460	650 x 485 x 785	1	9.883 583
KBF P 720	700	1250 x 890 x 1925	973 x 1250 x 576	1	9.883 584
KBF LQC 240	247	925 x 800 x 1460	650 x 485 x 785	1	6.236 223
KBF LQC 720	700	1250 x 890 x 1925	973 x 576 x 1250	1	6.236 224

### 1 Constant climate chambers series KBF-S Solid.Line

Constant climate chambers for long-term tests and accelerated stability tests of pharmaceutical products according to the ICH guideline Q1A. With corrosion and condensate-free stainless steel interior for homogeneous temperature and humidity conditions.

BINDER

- Electronically controlled APT.line™ preheating chamber with cooling system
- Inner chamber made completely of stainless steel
- 2 stainless steel racks incl. shelf support
- Intuitive touchscreen controller with time segment and real-time programming with internal measured value recording
- Humidity control with capacitive humidity sensor and vapor humidification
- Independent temperature safety device class 3.1 (DIN 12880) with optical and audible alarm
- Access port with silicone plug diam. 30mm, left side
- LCD display for indication of temperature, humidity, alarms and additional information
- Internal data logger with USB interface
- Independent water supply via canisters
- Models from 240 l capacity with double swivel castors and brake

#### Specifications

Humidity range:	20 ... 80 % r.F.
Humidity accuracy:	2.0 %
Temperature range:	0 ... 70 °C
Temperature accuracy:	±0.1 °C
Computer interface:	Ethernet
Power supply:	200 ... 230 V, 50/60 Hz

Type	Internal volume litres	External dimensions (W x D x H) mm	Internal dimensions (W x D x H) mm	Plug type	PK	Cat. No.
KBF-S 115	102	880 x 650 x 1050	600 x 351 x 483	EU	1	6.275 186
KBF-S 240	247	925 x 800 x 1460	650 x 485 x 785	EU	1	4.665 284
KBF-S 270	700	1250 x 890 x 1925	973 x 576 x 1250	EU	1	4.665 286
KBF-S 1020	1020	1250 x 1145 x 1925	976 x 1250 x 836	EU	1	6.275 188



### Material test chambers, FP and M series

The material test chambers from BINDER are highly precise and have a wide temperature range, as well as comprehensive programming options, with which you can customise ramps, profiles and processes.

BINDER

FP Series: Material test chamber with forced convection.  
M Series: Material test chambers with individual programming.

- Electronically controlled APT.line™ preheating chamber assuring temperature accuracy and reproducible results
- Adjustable fan speed
- 2 chrome-plated racks
- Temperature range from 5°C above ambient temperature to 300 °C
- Independent adjustable temperature safety device class 2 (DIN 12880), with visual temperature alarm
- RS 422 interface for use with APT-COM™ DataControlSystem communication software



9.883 710



9.883 565

Type	Internal volume litres	External dimensions (W x D x H) mm	Internal dimensions (W x D x H) mm	Type of auxiliary energy	PK	Cat. No.
FP 53	53	635 x 575 x 620	400 x 340 x 400	230 V, 50/60 Hz	1	9.883 710
FP 115	115	835 x 645 x 705	600 x 410 x 480	230 V, 50/60 Hz	1	9.883 711
FP 240	240	1035 x 745 x 825	800 x 510 x 600	230 V, 50/60 Hz	1	9.883 712
FP 400	400	1235 x 765 x 1025	1000 x 510 x 800	400 V, 50/60 Hz	1	9.883 713
FP 720	720	1235 x 865 x 1530	1000 x 610 x 1200	400 V, 50/60 Hz	1	9.883 714
M 53	53	635 x 575 x 780	400 x 340 x 400	230 V, 50/60 Hz	1	9.883 563
M 115	115	835 x 645 x 865	600 x 410 x 480	230 V, 50/60 Hz	1	9.883 564
M 240	240	1035 x 745 x 985	800 x 510 x 600	230 V, 50/60 Hz	1	9.883 565
M 400	400	1235 x 765 x 1185	1000 x 510 x 800	400 V, 50/60 Hz	1	9.883 566
M 720	720	1235 x 865 x 1695	1000 x 610 x 1200	400 V, 50/60 Hz	1	9.883 567

### Growth chambers, KBW, KBWF series

Homogeneous lighting conditions with constant temperature and humidity conditions, the BINDER growth chambers. The responsive humidification system, the high-performance cooling and uniform light distribution ensure optimal growth conditions.

BINDER

KBW Series: Growth chambers with light.

KBWF Series: Growth chambers with light and humidity.

Equipment:

- Electronically controlled APT.line™ preheating chamber
- Temperature range 0 °C to 70 °C (without humidity and illumination)
- Humidity range 10 % to 80 % RH (KBWF)
- 2 variable position illumination cassettes each with 5 daylight fluorescent illumination tubes
- Controller with time-segment and real-time programming
- Humidity regulation with capacitive humidity sensor and vapor humidification (KBWF)
- Independent temperature safety device class 3.1 (DIN 12880) with optical and audible temperature alarm
- Ethernet or RS 422 interface for communication software APT-COM™ DataControlSystem

Type	Internal volume litres	External dimensions (W x D x H) mm	Internal dimensions (W x D x H) mm	Type of auxiliary energy	PK	Cat. No.
KBW 240	247	925 x 800 x 1460	650 x 485 x 785	200 ... 240 V, 50 Hz	1	9.883 573
KBW 400	400	925 x 800 x 1945	650 x 485 x 1270	200 ... 240 V, 50/60 Hz	1	9.883 535
KBW 720	698	1255 x 887 x 1925	970 x 576 x 1270	200 ... 240 V, 50/60 Hz	1	9.883 574
KBWF 240	247	930 x 800 x 1460	650 x 485 x 785	200 ... 240 V, 50 Hz	1	9.883 575
KBWF 720	720	1255 x 890 x 1925	973 x 576 x 1250	200 ... 240 V, 50 Hz	1	9.883 576



9.883 535



9.883 576



### 3 Rapid incinerator

For individual and series incineration of solids and liquids. Upper platform with 8 openings of 34 mm diameter, for porcelain crucibles up to 50 mm diameter. Upper platform and housing made of stainless steel. With 120 minute timer with audible signal after timed period and separate continuous operation switch. A safety switch switches the mains supply off/on automatically on opening/closing the incinerator chamber. With 1.5 metre cable and earthed plug.

Gestigkeit

#### Type SVR/E

With electronic temperature control which allows stepless heating adjustment from 10 to 100 %. Complete for use.

#### Type SVD 95

With digital temperature adjustment and display. Complete for use.

Type	Dimensions (W x D x H) mm	Rating W	Temp. range max. °C	Supply requirements V	Weight kg	PK	Cat. No.
SVR/E	450 x 310 x 180	2500	950	230	7	1	9.884 140
SVD 95	450 x 310 x 180	2500	950	220	7	1	9.884 141
Heating element EH 400 for SVR/E (spare part)						1	9.884 142
Heating element EH 95 for SVD 95 (spare part)						1	9.884 143