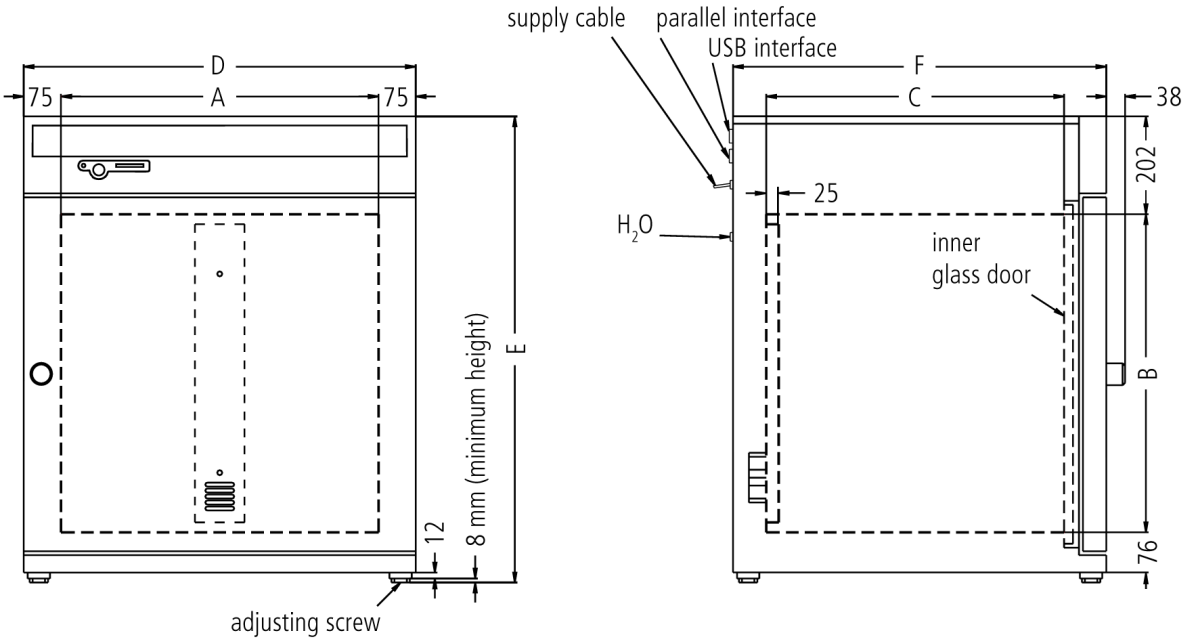
## Humidity chamber

# HCP108

High-precision control technology creates controlled and physiologically ideal surroundings for the perfect environment simulation in building physics, electronics, biology, zoology and botany.



On this page, you can find all the essential technical data on the Memmert humidity chamber HCP.





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## Temperature

| | |
|---|---|
| **Working temperature range** | with humidity min. 8°C above ambient up to +90°C |
| **Working temperature range** | without humidity min. 8°C above ambient up to +160°C |
| **Temperature** | 2 Pt100 sensors Class A in 4-wire-circuit, mutually monitoring and taking over the performance at the same temperature value |
| **Display** | resolution of display for setpoint values 0.1°C up to 99.9°C, 0.5°C from 100°C and for actual values 0.1°C (LED) |

## Humidity

| | |
|---|---|
| **Humidity** | active humidifying and de-humidifying control (20-95 %) with digital display of relative humidity - resolution of display 0.5 %, setting accuracy 1 % |
| **Humidity** | humidity supply with distilled water from external tank by self-priming pump |
| **Humidification** | humidification by hot steam generator |

## Control technology

| | |
|---|---|
| **Display** | digital display of all set parameters, such a temperature, weekdays, time, CO2, humidity and set-up values - language to be chosen via set-up |
| **Controller** | Electronic microprocessor temperature controller with auto-diagnostic system |
| **Timer** | integrated timer for tempering profiles of up to 40 ramps each, each segment adjustable from 1 min. to 999 hrs. |
| **Calibration** | three freely selectable temperature values |

## Communication

| | |
|---|---|
| **Interface USB** | USB-interface incl. Memmert software "Celsius" for programming and documentation |
| **Interface Printer** | parallel printer interface (incl. real time clock with date function) for all PCL3-compatible ink jet printers for GLP-conforming documentation |
| **Documentation** | integrated ring memory as data logger for GLP-conforming long-term documentation of all relevant parameters - 1024 kB |
| **Documentation** | programme stored in case of power failure |
| **Programming** | chip-card control incl. 1 MEMoryCard XL with 32 kB storage capacity (max. 40 ramps) |

## Safety

| | |
|---|---|
| **Temperature control** | mechanical temperature limiter TB, protection class 1 according to DIN 12880 to switch off the heating approx. 10°C above nominal temperature |
| **Temperature control** | overtemperature monitor TWW, protection class 3.1 or adjustable temperature limiter TWB, protection class 2, selectable on display |
| **AutoSAFETY** | additionally integrated over- and undertemperature monitor "ASF", automatically following the setpoint value at a preset tolerance range, alarm in case of over- or undertemperature, heating is switched off in case of overtemperature |
| **Autodiagnostic system** | integral fault diagnostics for temperature and humidity control |
| **Alarm** | with visual and acoustic alarm in case of over-/under temperature and underhumidity, open door and empty water tank |


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## Heating concept

| | |
|---|---|
| **6 sides** | large-area multi-function heating system on four sides with additional door and back heating to avoid condensation |
| **Ventilation** | uniform atmosphere and temperature distribution owing to enclosed non-turbulent ventilation system in working chamber |

## Standard equipment

| | |
|---|---|
| **Internals** | 2 perforated stainless steel shelf/shelves |
| **STERICard** | 2nd chip-card (STERICard) for sterilisation of working chamber with fixed values (4 hours/160°C) without removal of sensors |
| **Works calibration certificate** | standard value at +60°C |
| **Door** | fully insulated stainless steel door with2-point locking (compression door lock), lockable |
| **Door** | inner glass door |

## Stainless steel interior

| | |
|---|---|
| **Interior** | easy-to-clean interior,made of stainless steel,reinforced by deep drawn ribbing, material 1.4301 (ASTM 304), hermetically welded |
| **Volume** | 108 l |
| **Dimensions W x H x D in mm** | $w_{(A)}$ x $h_{(B)}$ x $d_{(C)}$: 560 x 480 x 400 mm |
| **Max. number of internals** | 5 |
| **Max. loading per internal** | 20 kg |

## Textured stainless steel casing

| | |
|---|---|
| **Dimensions** | $w_{(D)}$ x $h_{(E)}$ x $d_{(F)}$: 710 x 778 x 550 mm |
| **Housing** | rear zinc-plated steel |

## Electrical data

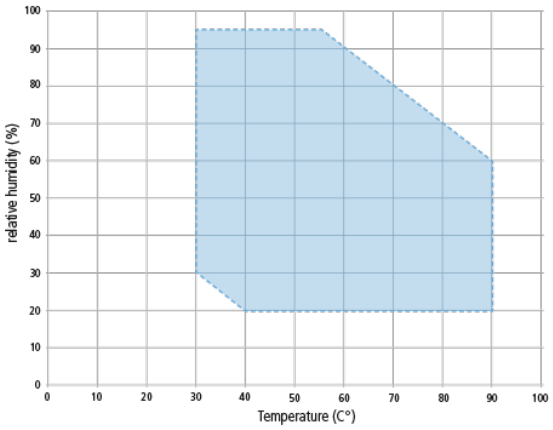
| | |
|---|---|
| **Voltage** | 230 V, 50/60 Hz |
| **Electrical load** | approx. 1000 W |

## Packing/shipping data/Setting Up

| | |
|---|---|
| **Set Up** | The distance between the wall and the rear of the chamber must be at least 15 cm. The clearance from the ceiling must not be less than 20 cm and the side clearance from the wall must not be less than 8 cm. |
| **Transport information** | The appliances must be transported upright |
| **Customs tariff number** | 8419 8998 |
| **Country of origin** | Federal Republic of Germany |
| **WEEE-Reg.-No.** | DE 66812464 |
| **Dimensions approx incl. carton** | B x H x T: 830 x 1050 x 800 mm |
| **Net weight** | approx. 70 kg |
| **Gross weight carton** | approx. 95 kg |

**Temperature-humidity working range HCP**

Not all climate chambers are the same. The humidity content of the chamber load, the ambient conditions and the respective temperature-humidity working range are decisive factors in the selection of the right appliance. In the adjacent diagram, you can see the possible temperature/humidity combinations for our humidity chambers HCP.
Within the respective temperature-humidity range, condensation-free permanent operation is possible. To which extent condensation may occur in the threshold range depends on the humidity content of the chamber load and the ambient conditions.




Temperature-humidity working range HCP

**Standard units are safety-approved and bear the test marks**