



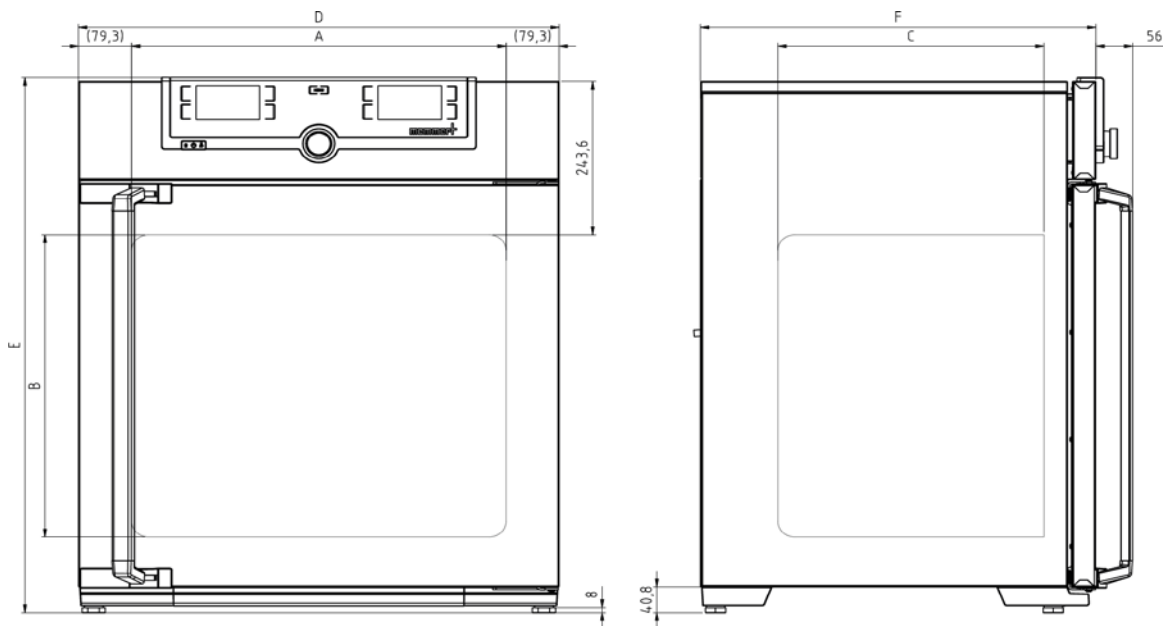
## Humidity Chamber

### HCP50

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. Our customer relations team will be pleased to help if you want further information. If you should require a customized special solution, please contact our technical specialists.



## Temperature

<b>Working-temperature range</b>	7 °C above ambient temperature up to +90 °C
<b>Setting temperature range</b>	+18 to +90 °C
<b>Setting accuracy temperature</b>	0.1 °C
<b>Temperature</b>	2 Pt100 sensors DIN Class A in 4-wire-circuit for mutual monitoring, taking over functions in case of an error

## Humidity

<b>Humidity Control</b>	Active microprocessor control for humidifying and dehumidifying (20 - 95 % rh), incl. digital indication and auto-diagnostic system ensures even more rapid reaching of set humidity and very short recovery times. Humidity supply with distilled water (from an external tank) by a self-priming pump; integral bacteria block by generating hot steam, dehumidifying via sterile filter
<b>Setting range active humidity control</b>	20 to 95 % rh and rh-Off
<b>Setting accuracy humidity</b>	0.5 % rh

## Control technology

<b>ControlCOCKPIT</b>	TwinDISPLAY. Adaptive multifunctional digital PID-microprocessor controller with 2 high-definition TFT-color displays.
<b>Language setting</b>	German, English, Spanish, French, Polish, Czech, Hungarian
<b>adjustable parameters</b>	temperature (Celsius or Fahrenheit), relative humidity, program time, time zones, daylight savings time
<b>Timer</b>	Digital backwards counter with target time setting, adjustable from 1 minute to 99 days
<b>Function SetpointWAIT</b>	the process time does not start until the set temperature is reached
<b>Calibration</b>	three freely selectable values each, temperature and humidity

## Communication

<b>Interface</b>	Ethernet LAN, USB
<b>Documentation</b>	program stored in case of power failure
<b>Programming</b>	AtmoCONTROL software on a USB stick for programming, managing and transferring programs via Ethernet interface or USB port

## Safety

<b>AutoSAFETY</b>	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
<b>Autodiagnostic system</b>	integral fault diagnostics for temperature and humidity control
<b>Alarm</b>	visual and acoustic

## Heating concept

<b>6 sides</b>	large-area multi-function heating system on four sides with additional door and back heating to avoid condensation
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## Standard equipment

<b>Works calibration certificate</b>	Works calibration certificate (measuring point chamber center) at 60 °C with 75 % rh
<b>Entry port</b>	Entry port (silicone), 40 mm clear diameter, for introducing connections, moisture tight, can be closed by silicone stopper, at the back, center left
<b>Door</b>	Additional heated inner glass door
<b>Door</b>	fully insulated stainless steel door with 2-point locking (compression door lock)
<b>Internals</b>	1 perforated stainless steel shelf/shelves

## Stainless steel interior

<b>Interior</b>	material 1.4301 (ASTM 304), corrosion resistant
<b>Volume</b>	56 l
<b>Dimensions</b>	$w_{(A)} \times h_{(B)} \times d_{(C)}$ : 15.7" x 16.7" x 13"
<b>Max. number of internals</b>	5
<b>Max. loading of chamber</b>	165 lbs
<b>Max. loading per internal</b>	33 lbs

## Textured stainless steel casing

<b>Dimensions</b>	$w_{(D)} \times h_{(E)} \times d_{(F)}$ : 22" x 31.3" x 20.5"
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## Electrical data

<b>Voltage</b>	230 V, 50/60 Hz
<b>Electrical load</b>	approx. 6.6 A
<b>Voltage</b>	115 V, 50/60 Hz
<b>Electrical load</b>	approx. 13.2 A

## Ambient conditions

<b>Ambient temperature</b>	10 °C to 30 °C
<b>Set Up</b>	The distance between the wall and the rear of the appliance must be at least 6 inches. The clearance from the ceiling must not be less than 8 inches and the side clearance from walls or nearby appliances must not be less than 2 inches.
<b>Humidity rh</b>	max. 70 %, non-condensing
<b>Altitude of installation</b>	max. 2,000 m above sea level
<b>Overvoltage category</b>	II
<b>Pollution degree</b>	2

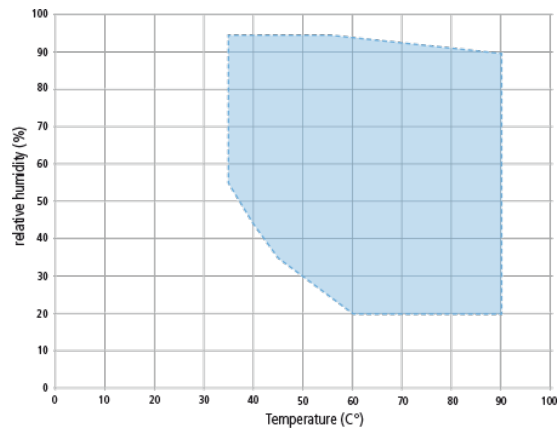
**Packing/shipping data**

<b>Transport information</b>	The appliances must be transported upright
<b>Customs tariff number</b>	8419 8998
<b>Country of origin</b>	Federal Republic of Germany
<b>WEEE-Reg.-No.</b>	DE 66812464
<b>Dimensions approx. incl. carton</b>	w x h x d: 28.7" x 37.4" x 25.2"
<b>Net weight</b>	approx. 122 lbs
<b>Gross weight carton</b>	approx. 164 lbs

**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, permanent operation is possible (at an ambient temperature of 22 °C ± 3 K, relative humidity < 50 %). Condensation may occur in the threshold range. To which extent 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**

