



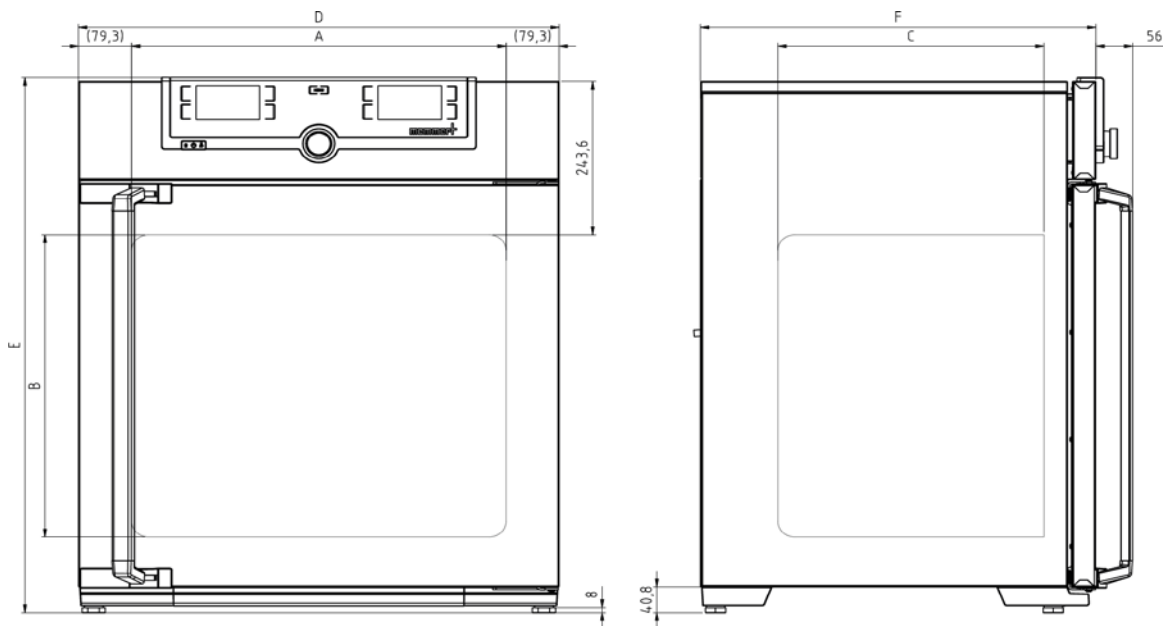
Humidity Chamber

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

Working-temperature range	6 °C above ambient temperature up to +90 °C
Setting temperature range	+18 to +90 °C
Setting accuracy temperature	0.1 °C
Temperature	2 Pt100 sensors DIN Class A in 4-wire-circuit for mutual monitoring, taking over functions in case of an error

Humidity

Humidity Control	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
Setting range active humidity control	20 to 95 % rh and rh-Off
Setting accuracy humidity	0.5 % rh

Control technology

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

Communication

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

Safety

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	visual and acoustic

Heating concept

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

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

Stainless steel interior

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

Textured stainless steel casing

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

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

Ambient conditions

Ambient temperature	10 °C to 30 °C
Set Up	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.
Humidity rh	max. 70 %, non-condensing
Altitude of installation	max. 2,000 m above sea level
Overvoltage category	II
Pollution degree	2

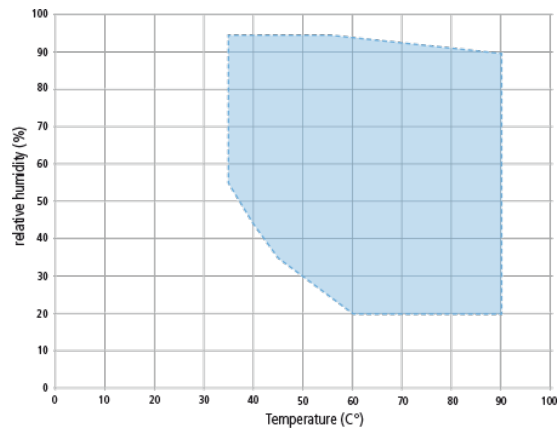
Packing/shipping data

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	w x h x d: 28.7" x 37.4" x 25.2"
Net weight	approx. 122 lbs
Gross weight carton	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

