

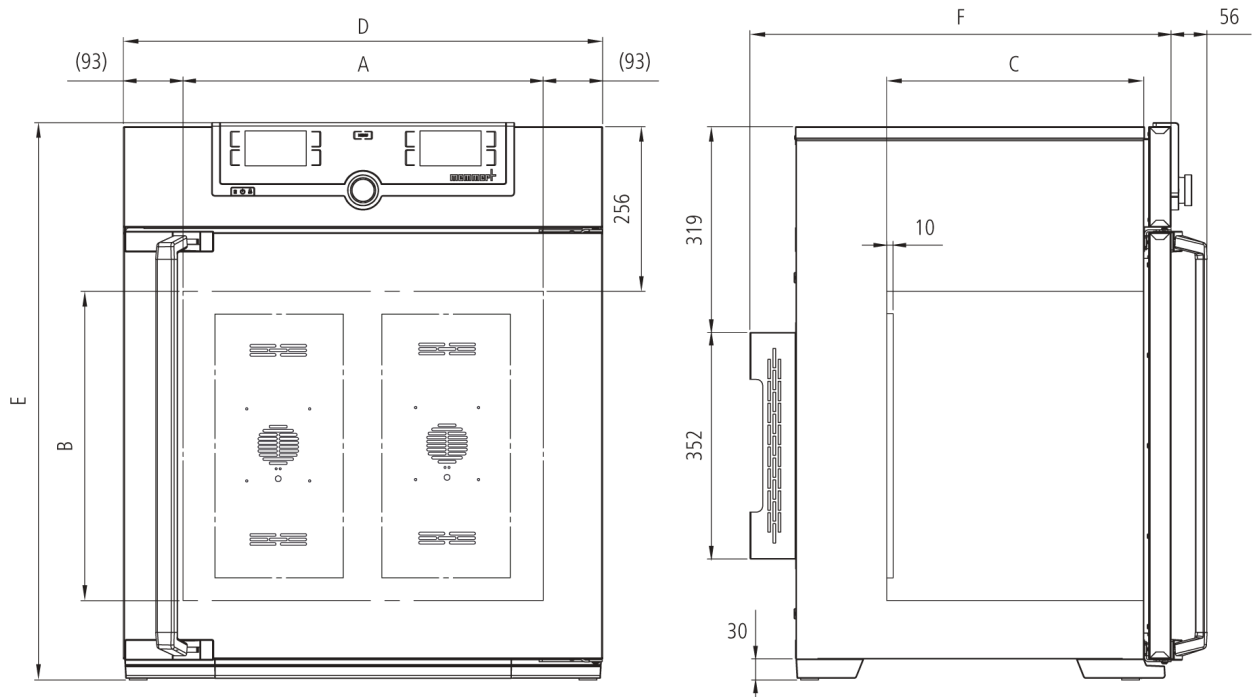


Constant climate chamber HPP110

Our constant climate chamber is tailored to environmental simulation, material testing and stability testing in accordance with the ICH guidelines.



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



Temperature

Working temperature range	without light: from 0°C to +70°C
Working temperature range	with light: from +15°C to +40°C
Setting accuracy temperature	0.1°C
Temperature	2 Pt100 sensors Class A in 4-wire-circuit, mutually monitoring and taking over the performance at the same temperature value

Humidity

Setting range humidity	10 - 90 % rh
Setting accuracy humidity	0.5 %
Humidity	humidity supply with distilled water from external tank by self-priming pump
Humidification	humidification by hot steam generator
Dehumidification	dehumidification by cold trap using the Peltier technology

Control technology

ControlCOCKPIT	TwinDISPLAY. Adaptive multifunctional digital PID-microprocessor controller with 2 high-definition TFT-colour displays.
Language setting	German, English, Spanish, French, Polish, Czech, Hungarian
adjustable parameters	temperature (Celsius or Fahrenheit), relative humidity, programme time, time zones, summertime/wintertime
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 temperature values, 2-point calibration for humidity: 20 and 90 % rh

Communication

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

Safety

Temperature control	over- and undertemperature monitor TWW, protection class 3.3 or adjustable temperature limiter TWB, protection class 2, selectable on display
AutoSAFETY	additionally integrated over- and undertemperature protection "ASF", automatically following the setpoint value at a preset tolerance range, alarm in case of over- or undertemperature, heating function is switched off in case of overtemperature, cooling function in case of undertemperature
Autodiagnostic system	integral fault diagnostics for temperature and humidity control
Alarm	visual and acoustic

Heating concept

Peltier	energy-saving Peltier heating-/cooling system integrated in the rear (heat pump principle)
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Standard equipment

Internals	2 stainless steel grid(s), electropolished
Standard accessories	Water tank including connection hose
Works calibration certificate	standard values +10 °C and +37 °C, 60 % rh at +30 °C
Door	fully insulated stainless steel door with 2-point locking (compression door lock)
Door	inner glass door

Stainless steel interior

Volume	108 l
Dimensions W x H x D in mm	$w_{(A)} \times h_{(B)} \times d_{(C)}$: 560 x 480 x 400 mm
Max. number of internals	5
Max. loading of chamber	150 kg
Max. loading per internal	20 kg

Textured stainless steel casing

Dimensions	$w_{(D)} \times h_{(E)} \times d_{(F)}$: 745 x 864 x 674 mm
Housing	rear zinc-plated steel

Electrical data

Voltage	230 V, 50/60 Hz
Electrical load	approx. 650 W
Voltage	115 V, 50/60 Hz
Electrical load	approx. 650 W

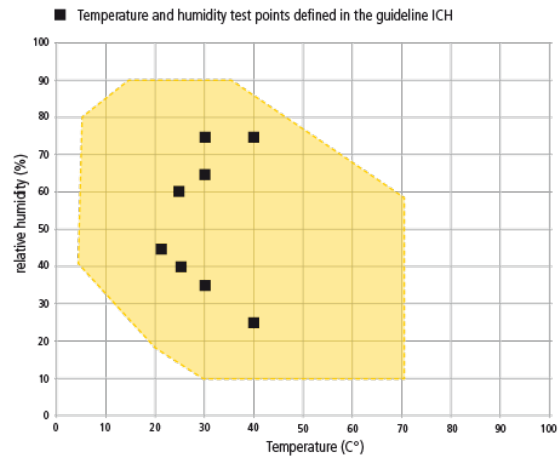
Packing/shipping data/Setting Up

Set Up	The distance between the wall and the rear of the appliance must be at least 15 cm. The clearance from the ceiling must not be less than 20 cm and the side clearance from walls or nearby appliances must not be less than 5 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. 77 kg
Gross weight carton	approx. 102 kg

Temperature-humidity working range HPP

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 constant climate chamber HPP.

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 HPP
HPP110 - HPP1060 without light

Standard units are safety-approved and bear the test marks

