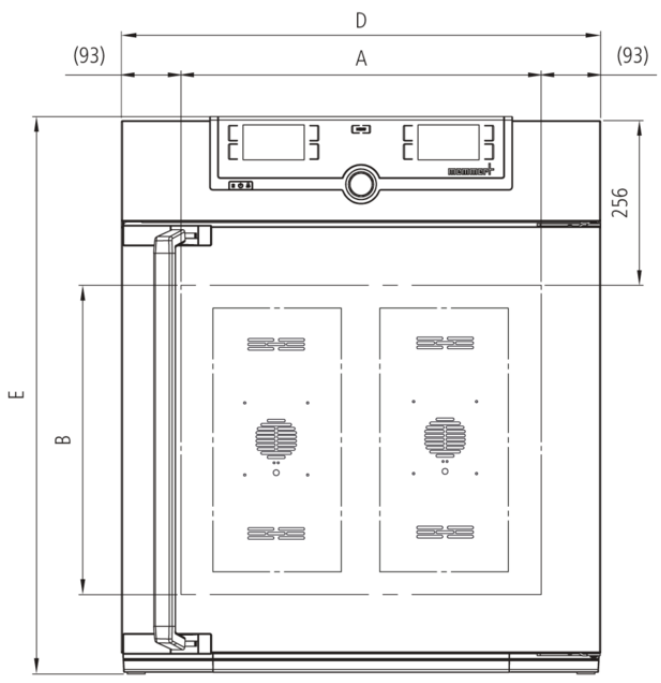
Constant climate chamber

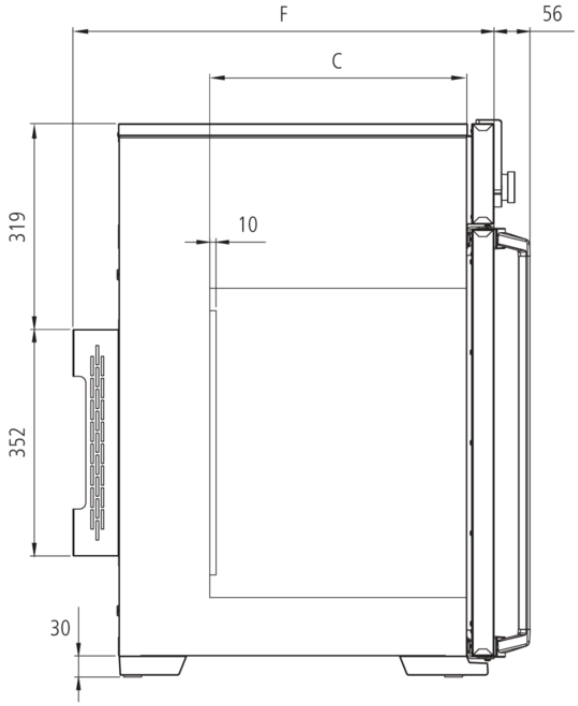
HPP110

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. Our customer relations team will be pleased to help if you want further information. If you should require a customised special solution, please contact our technical specialists at sales@memmert.com.





Memmert GmbH + Co. KG | Tel. +49 (0) 9122/925-0 | E-Mail info@memmert.com

Temperature

Setting temperature range	without light, with humidity: +5 to +70 °C
Setting temperature range	with light, with humdity: +5 to +70 °C
Setting temperature range	with light, without humditiy: 0 to +70 °C
Setting temperature range	without light, without humidity: 0 to +70 °C
Working temperature range	with light, without or with humidity: 15 to +40 °C
Working temperature range	without light, with humidity: +5 (at least 20 below ambient temperature) to +70 °C
Working temperature range	without light, without humidity: 0 (at least 20 below ambient temperature) to +70 °C
Setting accuracy temperature	0.1 °C
Temperature sensor	2 Pt100 sensors DIN Class A in 4-wire-circuit for mutual monitoring, taking over functions in case of an error

Humidity

Setting range humidity	10 - 90 % rh
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
Setting accuracy humidity	0.5 % rh

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 values each, temperature and humidity

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)

Standard equipment

Door	fully insulated stainless steel door with 2-point locking (compression door lock)
Internals	2 stainless steel grid(s), electropolished
Standard accessories	Water tank including connection hose (110-750: 2,5 liter, 1060-2200: 10 liter)
Works calibration certificate	standard values +10 °C and +37 °C, 60 % rh at +30 °C
Door	inner glass door

Stainless steel interior

Dimensions	$w_{(A)}$ x $h_{(B)}$ x $d_{(C)}$: 560 x 480 x 400 mm (d less 10 mm for fan - Peltier)
Volume	108 l
Max. number of internals	5
Max. loading of chamber	150 kg
Max. loading per internal	20 kg

Textured stainless steel casing

Dimensions	$w_{(D)}$ x $h_{(E)}$ x $d_{(F)}$: 745 x 864 x 656 mm (d +56mm door handle)
Housing	rear zinc-plated steel

Electrical data

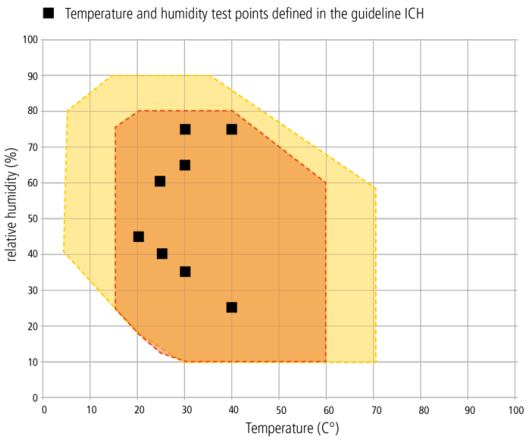
Voltage **Electrical load**	230 V, 50/60 Hz approx. 650 W
Voltage **Electrical load**	115 V, 50/60 Hz approx. 650 W

Ambient conditions

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.
Ambient temperature	16 ºC to 40 ºC
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: 830 x 1050 x 800 mm
Net weight	approx. 77 kg
Gross weight carton	approx. 102 kg



Temperature-humidity working range HPP

HPP110 - HPP1060 without light/ HPP1400 & HPP2200

Memmert GmbH + Co. KG | Tel. +49 (0) 9122/925-0 | E-Mail info@memmert.com

Standard units are safety-approved and bear the test marks



Memmert GmbH + Co. KG | Tel. +49 (0) 9122/925-0 | E-Mail info@memmert.com