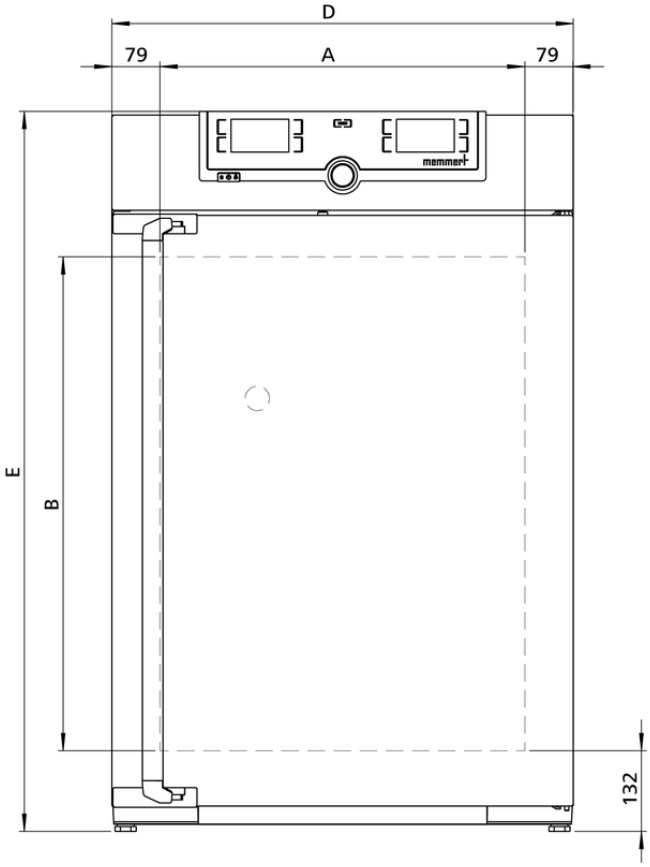
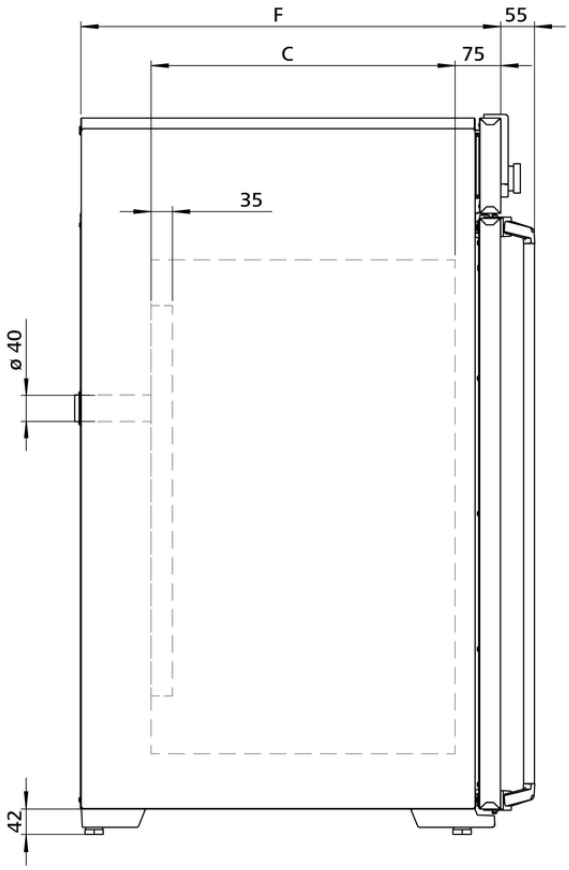
Humidity chamber

HCP240

Active humidity control creates a controlled environment for accelerated life tests and 85/85 tests.

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 customised special solution, please contact our technical specialists at myAtmoSAFE@memmert.com.





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Temperature

Working-temperature range	+7 above ambient temperature up to +90 °C
Setting temperature range	+18 to +90 °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

Humidity Control	
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-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

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

Standard equipment

Works calibration certificate	Works calibration certificate (measuring point chamber centre) 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, centre left
Door	Additional heated inner glass door
Door	fully insulated stainless steel door with 2-point locking (compression door lock)
Internals	2 perforated stainless steel shelf/shelves

Stainless steel interior

Dimensions	$w_{(A)}$ x $h_{(B)}$ x $d_{(C)}$: 600 x 810 x 500 mm (d less 35 mm for fan)
Interior	W.-St. 1.4301 (ASTM 304)
Volume	241 l
Max. number of internals	12
Max. loading of chamber	140 kg
Max. loading per internal	15 kg

Textured stainless steel casing

Dimensions	$w_{(D)}$ x $h_{(E)}$ x $d_{(F)}$: 759 x 1180 x 691 mm (d +56mm door handle)

Electrical data

Voltage **Electrical load**	230 V, 50/60 Hz approx. 1840 W
Voltage **Electrical load**	115 V, 50/60 Hz approx. 1840 W

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 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.
Humidity rh	max. 70 %, non-condensing
Altitude of installation	max. 2,000 m above sea level
Overvoltage category	II
Pollution degree	2

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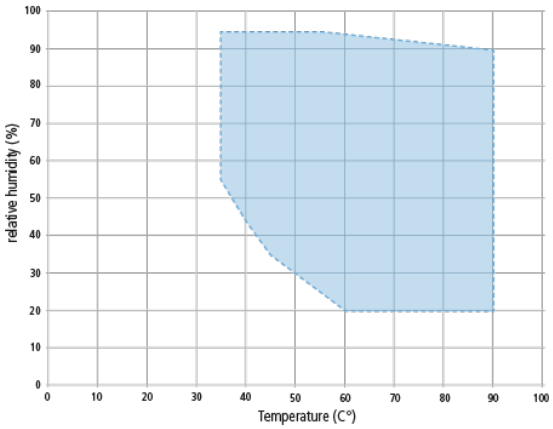
Packing/shipping data

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: 840 x 1360 x 900 mm
Net weight	approx. 110 kg
Gross weight carton	approx. 145 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, 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

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