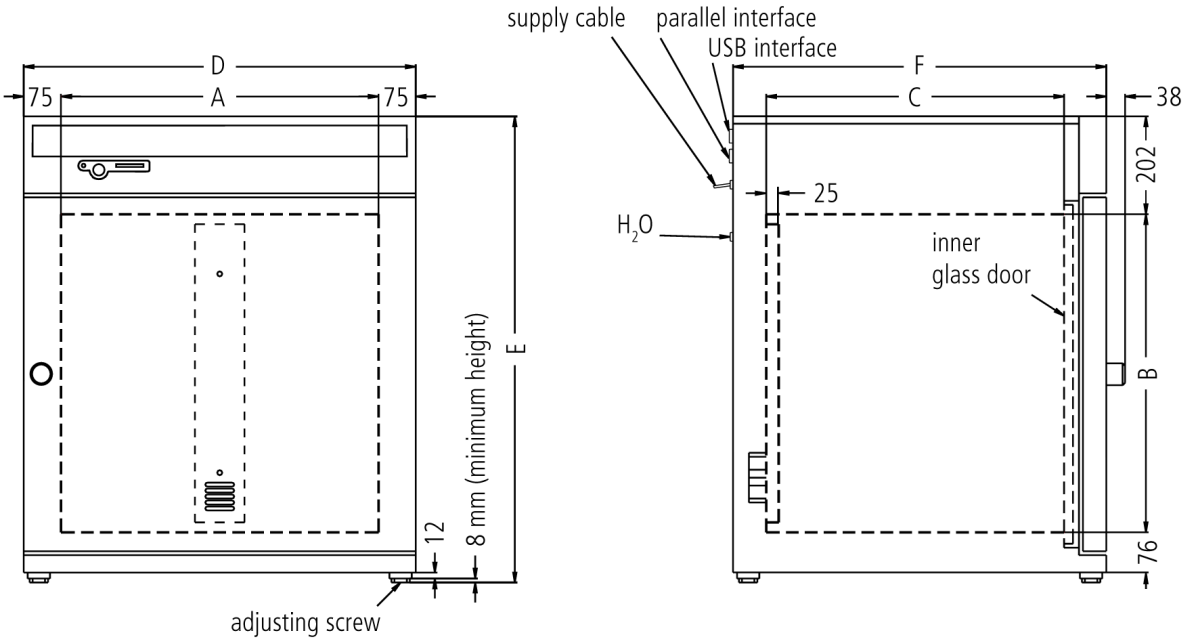
Humidity chamber

HCP153

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.



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Temperature

Working temperature range	with humidity min. 8°C above ambient up to +90°C
Working temperature range	without humidity min. 8°C above ambient up to +160°C
Temperature	2 Pt100 sensors Class A in 4-wire-circuit, mutually monitoring and taking over the performance at the same temperature value
Display	resolution of display for setpoint values 0.1°C up to 99.9°C, 0.5°C from 100°C and for actual values 0.1°C (LED)

Humidity

Humidity	active humidifying and de-humidifying control (20-95 %) with digital display of relative humidity - resolution of display 0.5 %, setting accuracy 1 %
Humidity	humidity supply with distilled water from external tank by self-priming pump
Humidification	humidification by hot steam generator

Control technology

Display	digital display of all set parameters, such a temperature, weekdays, time, CO2, humidity and set-up values - language to be chosen via set-up
Controller	Electronic microprocessor temperature controller with auto-diagnostic system
Timer	integrated timer for tempering profiles of up to 40 ramps each, each segment adjustable from 1 min. to 999 hrs.
Calibration	three freely selectable temperature values

Communication

Interface USB	USB-interface incl. Memmert software "Celsius" for programming and documentation
Interface Printer	parallel printer interface (incl. real time clock with date function) for all PCL3-compatible ink jet printers for GLP-conforming documentation
Documentation	integrated ring memory as data logger for GLP-conforming long-term documentation of all relevant parameters - 1024 kB
Documentation	programme stored in case of power failure
Programming	chip-card control incl. 1 MEMoryCard XL with 32 kB storage capacity (max. 40 ramps)

Safety

Temperature control	mechanical temperature limiter TB, protection class 1 according to DIN 12880 to switch off the heating approx. 10°C above nominal temperature
Temperature control	overtemperature monitor TWW, protection class 3.1 or adjustable temperature limiter TWB, protection class 2, selectable on display
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	with visual and acoustic alarm in case of over-/under temperature and underhumidity, open door and empty water tank

Heating concept

6 sides	large-area multi-function heating system on four sides with additional door and back heating to avoid condensation
Ventilation	uniform atmosphere and temperature distribution owing to enclosed non-turbulent ventilation system in working chamber

Standard equipment

Internals	2 perforated stainless steel shelf/shelves
STERICard	2nd chip-card (STERICard) for sterilisation of working chamber with fixed values (4 hours/160°C) without removal of sensors
Works calibration certificate	standard value at +60°C
Door	fully insulated stainless steel door with2-point locking (compression door lock), lockable
Door	inner glass door

Stainless steel interior

Interior	easy-to-clean interior,made of stainless steel,reinforced by deep drawn ribbing, material 1.4301 (ASTM 304), hermetically welded
Volume	153 l
Dimensions W x H x D in mm	$w_{(A)}$ x $h_{(B)}$ x $d_{(C)}$: 480 x 640 x 500 mm
Max. number of internals	7
Max. loading per internal	20 kg

Textured stainless steel casing

Dimensions	$w_{(D)}$ x $h_{(E)}$ x $d_{(F)}$: 630 x 938 x 650 mm
Housing	rear zinc-plated steel

Electrical data

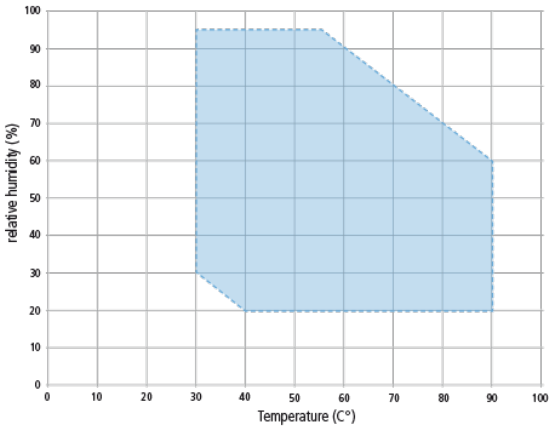
Voltage	230 V, 50/60 Hz
Electrical load	approx. 1500 W

Packing/shipping data/Setting Up

Set Up	The distance between the wall and the rear of the chamber must be at least 15 cm. The clearance from the ceiling must not be less than 20 cm and the side clearance from the wall must not be less than 8 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 1300 x 800 mm
Net weight	approx. 80 kg
Gross weight carton	approx. 106 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, 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 HCP

Standard units are safety-approved and bear the test marks