



Humidity chamber HCP  
with TwinDISPLAY  
AtmoCONTROL software

Model sizes: 50 / 105 / 150 / 240  
+18 °C to +90 °C  
Humidity 20 to 95% rh

**HUMIDITY CHAMBER HCP** with active humidity control from 20 % to 95 % rh and unsurpassed real temperature-humidity homogeneity over the entire interior, this nearly condensation-free climate chamber offers the full range of comfort, reliability and safety. It is ideally suited for environmental tests, accelerated life tests, stress tests of drug substance according to ICH Q1A and 85/85 tests to IEC 60068-2-67 and IEC 60068-2-78. It is also used in building physics and biological research.





## Optimum homogeneity of humidity and temperature

Active humidity control guarantees ideal homogeneity of temperature and humidity as well as short recovery times after opening the door. In addition, in combination with heating on all six sides, including the heated inner glass door, it minimises vaporisation in the interior and thus the risk of condensed water dripping onto the test object. An aluminium thermal conduction layer supports the optimal temperature distribution and serves as a heat accumulator if there is a temporary power failure.

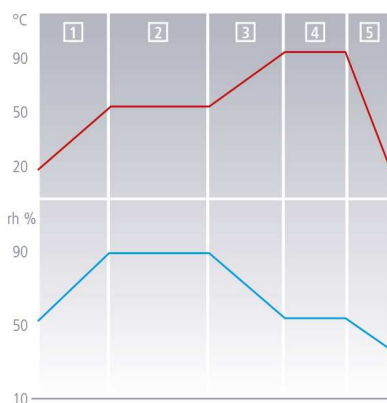
## Comfortable equipment for accelerated service life tests

Service life tests such as 85/85 tests run over 1,000 hours and more. The humidity chamber HCP offers a wide range of comfort functions: Standard entry ports at the back, battery-buffered ControlCOCKPIT (option), with SetpointWAIT function process time does not start until the set temperature is reached, alarm messages can be sent via e-mail or SMS (option) and much more.

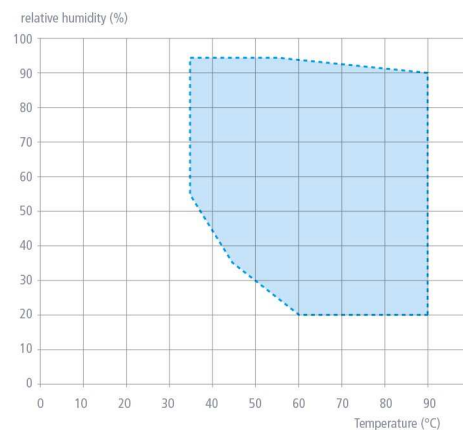
## Ramp programming

Essential for the exact simulation of environmental conditions in research: intuitive and fast ramp programming. Thanks to the AtmoCONTROL software, different set values of temperature and humidity can be combined on time ramps.

### Ramp programming








### Temperature-humidity working range



Note: Within the respective temperature-humidity range, permanent operation is possible (at an ambient temperature of  $22\text{ °C} \pm 3\text{ K}$ ; 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.

## HUMIDITY CHAMBERS HCP

according to DIN 12880:2007-05, EN 61010-1 (IEC 61010-1), EN 61010-2-010

Standard units are safety-approved and bear the test marks:     

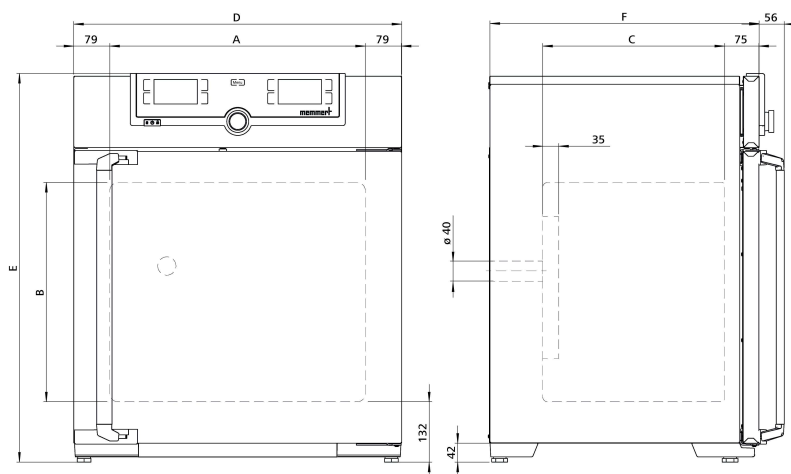
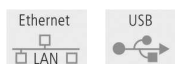
Interior: Stainless steel, material 1.4301 (ASTM 304), deep-drawn, seamlessly welded

Housing: Textured stainless steel, rear zinc-plated steel, intuitively operated TwinDISPLAY (TFT colour display) with touchscreen; fully insulated stainless steel door and heated inner glass door

Connection: Mains cable with plug (German type)

Installation: 4 adjustable feet

Interfaces:



| Model sizes/Description            |  |            | 50   | 105           | 150           | 240           |
|------------------------------------|--|------------|--|---------------|---------------|---------------|
| Stainless steel interior           | Volume   | approx. l  | 56   | 107           | 156           | 241           |
|                                    | Width  | (A) mm     | 400  | 560           |               | 600           |
|                                    | Height   | (B) mm     | 425  | 480           | 700           | 810           |
|                                    | Depth (less 35 mm for fan)   | (C) mm     | 330  | 400           |               | 500           |
|                                    | Max. number of grids/shelves   | number     | 5  | 6             | 10            | 12            |
|                                    | Max. loading per grid/shelf  | kg         | 15   |               |               |               |
|                                    | Max. loading of chamber  | kg         | 75   | 90            | 120           | 140           |
| Textured stainless steel exterior  | Width  | (D) mm     | 559  | 719           |               | 759           |
|                                    | Height (variable through adjustable feet)  | (E) mm     | 795  | 850           | 1070          | 1180          |
|                                    | Depth (without door handle, depth of handle +56 mm)  | (F) mm     | 521  | 591           |               | 691           |
|                                    | Fully insulated heated stainless steel door  |            |  | ●             |               |               |
|                                    | Additional heated inner glass door   |            |  | ●             |               |               |
| Standard equipment                 | Stainless steel shelves, perforated  | number     | 1  | 2             |               |               |
|                                    | Entry port (silicone), 40 mm clear diameter, moisture tight, can be closed by silicone stopper, at the back, centre left   |            |  | ●             |               |               |
|                                    | Door-open-recognition incl. alarm, shuts down fan  |            |  | ●             |               |               |
|                                    | Standard works calibration certificate (measuring point chamber center)  |            | +60 °C with 75 % rh                            |               |               |               |
| Temperature                        | Working temperature range  | °C         | at least 7 above ambient temperature up to +90 |               |               |               |
|                                    | Setting temperature range  | °C         | +18 to +90                                     |               |               |               |
|                                    | Setting accuracy   | °C         | 0.1  |               |               |               |
| Humidity                           | Capacitive humidity sensor for measuring and displaying the relative humidity  |            |  | ●             |               |               |
|                                    | 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 water (only for demineralised water with a conductivity of 5 to 10 µS/cm and a pH value between 5 and 7; 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  | % rh       | 20 to 95 and rh-Off                            |               |               |               |
|                                    | Setting accuracy   | % rh       | 0.5  |               |               |               |
| Further data                       | Electrical load at 230/115 V, 50/60 Hz   | approx. W  | 1520   | 1720          | 1800          | 1840          |
| Packing data                       | Net weight   | approx. kg | 55   | 75            | 90            | 110           |
|                                    | Gross weight (packed in carton)  | approx. kg | 74   | 100           | 116           | 145           |
|                                    | Width  | approx. mm | 730  | 800           |               | 840           |
|                                    | Height   | approx. mm | 950  | 1030          | 1250          | 1360          |
|                                    | Depth  | approx. mm | 640  | 800           |               | 900           |
| <b>Order No. Humidity Chambers</b> |  |            | <b>HCP50</b>                                   | <b>HCP105</b> | <b>HCP150</b> | <b>HCP240</b> |

| Options  | 50  | 105   | 150    | 240 |
|--|---|---|--------|-----|
| Voltage 115 V, 50/60 Hz  |   |   | X2     |     |
| Battery-buffered ControlCOCKPIT: uninterrupted supply for the entire display unit (ControlCOCKPIT) and therefore complete documentation of all parameters even when there is a power failure |   |   | C2     |     |
| Entry port, 23 mm clear diameter, at the side  |   | left centre/top   | F1     |     |
|  |   | right centre/top  | F3     |     |
| 4 - 20 mA current loop interface   | Temperature controller, actual value (0 to +100 °C = 4 - 20 mA) |   | V3     |     |
|  |   | Humidity controller, actual value (0 to 100 % rh = 4 - 20 mA) | V7     |     |
| Works calibration certificate for one (freely selectable) temperature and humidity value according to customer specification   |   |   | D00105 |     |
| Potential-free contact for combination error message (e.g. supply failure, sensor fault, fuse)   |   |   | H6     |     |
| MobileALERT, notification by SMS in case of any error or alarm of the device (requires option H6)  |   |   | C3     |     |
| MobileALERT for 2 alarm notifications; notification by SMS. temperature and humidity alarm   |   |   | C4     |     |
| Door with lock and key (safety lock)   |   |   | B6     |     |

| Accessories  | 50     | 105     | 150    | 240 |
|--|--------|---------|--------|-----|
| Perforated stainless steel shelf   | E35160 | E37418  | E35158 |     |
| Stainless steel grid, electropolished  | E20164 | E20165  | E43118 |     |
| Subframe (622 mm high) adjustable in height (sizes 150/240: should not be used for 2 stacked units)  | B33504 | B33505  | B33506 |     |
| Subframe (130 mm high); sizes 150/240: only in combination with the corresponding stacking sets for stacked appliances   | B33507 | B33508  | B33509 |     |
| Subframe, on castors (height 120 mm; stainless steel, material 1.4301)   |        | -       | B43598 |     |
| Central water supply with filter cartridges for connection to the domestic water supply. Product information on demand   |        | ZWVR6   |        |     |
| Central water supply without filter cartridges for connection to the domestic water supply (only for demineralised water with a conductivity of 5 to 10 µS/cm and a pH value between 5 and 7). Product information on demand   |        | ZWVR7   |        |     |
| Guarantee extension by 1 year  |        | GA3Q5   |        |     |
| USB-Ethernet adapter   |        | E06192  |        |     |
| Ethernet connection cable 5 m for computer interface   |        | E06189  |        |     |
| USB User-ID stick (with User-ID licence): Oven-linked authorisation licence (User-ID-programme) on Memory-stick, prevents undesired manipulation by unauthorised third parties. When reordering please specify serial number   |        | B33170  |        |     |
| Stacking set (4 pcs) for stacking of appliances of same size   | B29744 |         | -      |     |
| Stacking set (consisting of stacking corners, one connecting plate for the rear, two wall brackets) for stacking of two units of same size   | -      | B42114  | -      |     |
| Stacking set (consisting of stacking corners, one connecting plate for the rear, two wall brackets) for stacking of two units of same size (only in connection with subframe B33509 or B43598)   |        | -       | B48129 |     |
| FDA conforming software AtmoCONTROL (FDA edition). Meets the requirements for the use of electronically stored data sets and electronic signatures as laid down in Regulation 21 CFR Part 11 of the US Food and Drug Administration (FDA). Base licence for the control of one unit. Respective IQ/OQ documents available in German and English language (without surcharge) |        | FDAQ1   |        |     |
| Integration of additional units (up to max. 31 units) into an already existent FDA-software licence  |        | FDAQ2   |        |     |
| External measuring instrument with additional measuring head for temperature and humidity measurement. Product information on demand   |        | B04714  |        |     |
| DAkkS calibration for one (freely selectable) temperature and humidity value according to method C (DKD-R 5-7)   |        | E48847  |        |     |
| DAkkS calibration for further temperature and humidity values according to method C (DKD-R 5-7)  |        | E48848  |        |     |
| IQ document with device-specific works test data, OQ/PQ check list as support for validation by customer   |        | D00124  |        |     |
| IQ/OQ document with device-specific works test data for one free-selectable temperature and humidity value, incl. temperature distribution survey at Memmert for 27 measuring points to DIN 12880:2007-05, PQ check list as support for validation by customer. 475 € for further temperature and humidity values  |        | D00136  |        |     |
| On-site IQ/OQ for a freely selectable temperature and humidity value, including temperature distribution survey for 27 measuring points to DIN 12880: 2007-05 (excluding travel costs, not subject to discount, GER, AT, FR only)  |        | DLQ101  |        |     |
| Extension of DLQ101 by an additional freely selectable temperature and humidity value (not subject to discount)  |        | DLQ101A |        |     |
| Individual on-site Performance Qualification (PQ)  |        | DLQ200  |        |     |
| Maintenance HCP - carrying out and documentation according to Memmert maintenance plan (excluding travel costs, not subject to discount, GER, AT, FR only)   |        | S00313  |        |     |
| Maintenance contract HCP - carrying out and documentation according to Memmert maintenance plan, minimum duration 3 years (excluding travel costs, not subject to discount, GER, AT, FR only)  |        | S00313J |        |     |
| Calibration of one freely selectable temperature value (excluding travel costs, not subject to discount, GER, AT, FR only)   |        | S00205  |        |     |
| Calibration of an additional temperature value (not subject to discount)   |        | S00215  |        |     |
| Calibration of one freely selectable temperature and humidity value (excluding travel costs, not subject to discount, GER, AT, FR only)  |        | S00207  |        |     |
| Calibration of an additional temperature and humidity value (not subject to discount)  |        | S00216  |        |     |