

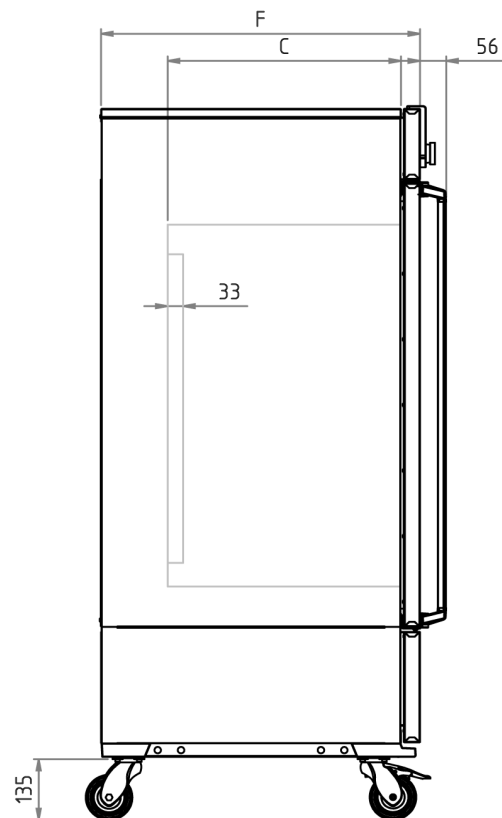
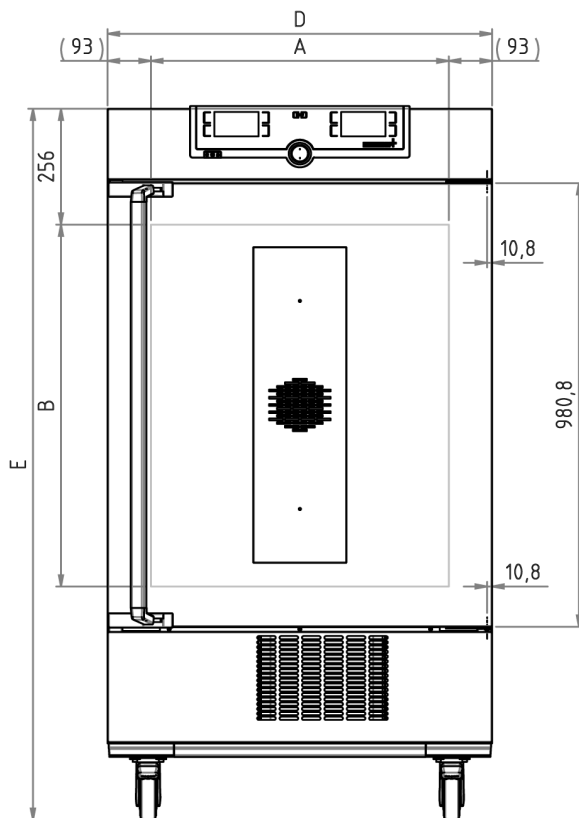


Climate Chamber ICH110C

Unparalleled homogeneity of temperature and humidity! For stability testing according to ICH - WHO - EMA - ASEAN - GMP - GLP – GCCP.



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



Temperature

Working temperature range	from +10°C up to +50°C
Setting accuracy temperature	0.1 °C
Temperature	2 Pt100 sensors DIN Class A in 4-wire-circuit for mutual monitoring, taking over functions in case of an error

Humidity

Humidity	humidity supply with distilled water from external tank by self-priming pump
Humidification	humidification by hot steam generator
Humidity	active humidifying and de-humidifying adjustable from 10-80 % rh with digital display of relative humidity - resolution of display 0.1 %, setting accuracy 0.5 %

CO2

CO2	digital electronic CO2-control with automatic zeroing (infrared measuring system) - adjustment range 0-20 % - resolution 0.1 %
CO2	CO2-supply via sterile filter
CO2	intrinsic adjustment of altitude above sea level
CO2	CO2-supply interruption upon door opening

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
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/humidity/CO2
Adjustable parameters	temperature (Celsius or Fahrenheit), fan speed, CO2, programme time, time zones, summertime/wintertime

Ventilation

Fan	forced air circulation in working chamber adjustable from 10 to 100 % in 10 % steps, fixed value 50 % when working with CO2
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Communication

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	mechanical temperature limiter TB, protection class 1 according to DIN 12880 to switch off the heating approx. 10°C above nominal temperature
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 is switched off in case of overtemperature, compressor in case of undertemperature
Autodiagnostic system	integral fault diagnostics for temperature, CO2 and humidity control
Alarm	visual and acoustic

Heating concept

Air jacket	air jacket heating system for gentle all-around heating
Heating concept	no drying-up of the load caused by the cooling device due to separation of thermal jacket from interior
Cooling	energy-saving use of CFC-free cooling/heating system (refrigerant R134a)
Defrosting	highly efficient automatic defrosting system

Standard equipment

Entry port	Entry port (silicone), 40 mm clear diameter, moisture tight, can be closed by a silicone stopper, standard position at the back
Door	fully insulated stainless steel door with 2-point locking (compression door lock)
Internals	2 stainless steel grid(s), electropolished
Works calibration certificate	standard values +10 °C and +37 °C, 60 % rh at +30 °C
Door	inner glass door

Stainless steel interior

Volume	108 l
Dimensions	$w_{(A)} \times h_{(B)} \times d_{(C)}$: 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

Installation	on lockable castors
Dimensions	$w_{(D)} \times h_{(E)} \times d_{(F)}$: 745 x 1233 x 585 mm
Housing	rear zinc-plated steel

Electrical data

Voltage 230 V, 50/60 Hz
Electrical load approx. 1350 W

Voltage 115 V, 50/60 Hz
Electrical load approx. 1350 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 15 °C to 28 °C (up to 34 °C with limited temperaturerange)

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: 880 x 1410 x 810 cm

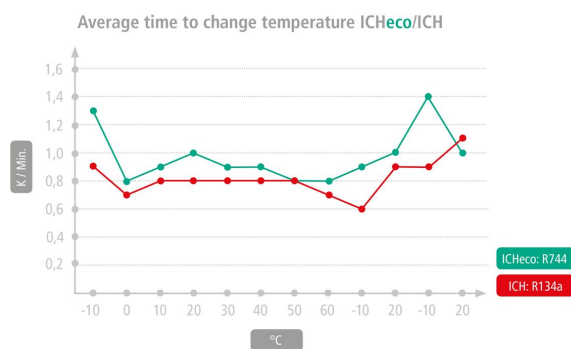
Net weight approx. 109 kg

Gross weight carton approx. 137 kg

Climate-neutral refrigerant CO₂ ensures better

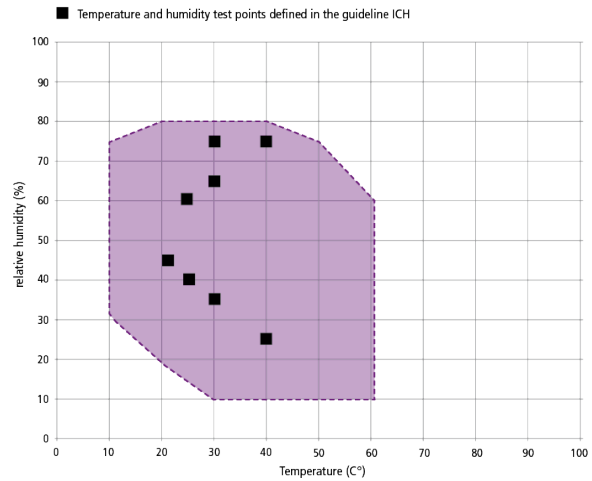
cooling performance

The climate chamber ICHeco is virtually maintenance-free, extremely powerful and environmentally-friendly. Compared to appliances with refrigerant R134a, it scores with faster change speeds during cooling. For a transition period, the Memmert climate chambers ICH / ICH L / ICH C with refrigerant R134a will be available in parallel.



Temperature-humidity working range ICHeco

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 climate chamber ICHeco. 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 ICHeco/ICH

Standard units are safety-approved and bear the test marks

