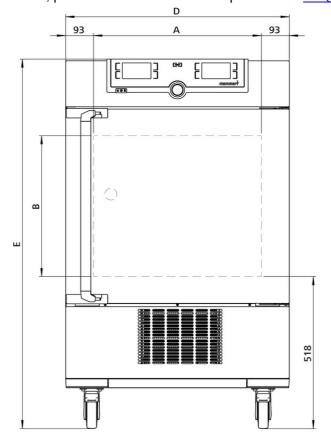


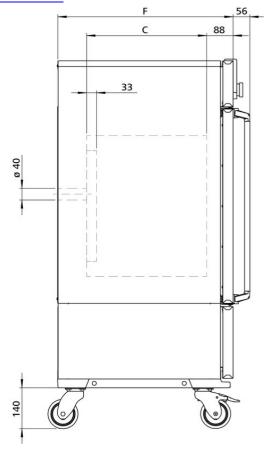
# Climate Chamber ICH110L

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 ICH. Our customer relations team will be pleased to help if you want further information. If you should require a customized special solution, please contact our technical specialists at <a href="mailto:info@memmertusa.com">info@memmertusa.com</a>.





Temperature
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Working temperature range	without humidity: 0 to +60 °C
Setting temperature range	0 to +60 °C
Working temperature range	from +10°C up to +60°C with humidity and/or light
Setting resolution 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	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 resolution 0.5 $\%$		

## **Control of standard components**

Light	illumination unit consisting of 3 fluorescent lights with cold white light (standard illuminant D65, 6.500K) and 2 UV-lamps in the spectral range of 320-400 nm
Light	daylight and UV-light can be programmed individually via controller
Light	cold white light +/- 6 %, for UV-light +/- 10 %

# **Control technology**

ControlCOCKPIT	TwinDISPLAY. Adaptive multifunctional digital PID-microprocessor controller with 2 high-definition TFT-color 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/CO <sub>2</sub>
adjustable parameters	temperature (Celsius or Fahrenheit), fan speed, light, humidity, timer

#### Ventilation

Fan forced air circulation in working chamber adjustable from 10 to 100 % in 10 % steps
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Programming AtmoCONTROL software on a USB stick for programming, managing and transferring via Ethernet interface or USB port	ng programs

#### 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 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			
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)	
Shelving	2 stainless steel grids, electropolished	
Works calibration certificate	standard values +10 °C and +37 °C, 60 % rh at +30 °C	
Door	inner glass door	

## Stainless steel interior

Dimensions	w <sub>(A)</sub> x h <sub>(B)</sub> x d <sub>(C)</sub> : 22 x 18.9 x 15.7 inches (d less 1.3" for fan)		
Volume	108 I / 3.8 cu ft		
Max. number of shelves	5		
Max. loading of chamber	330 lbs		
Max. loading per shelf	44 lbs		

# Textured stainless steel casing

Dimensions	w <sub>(D)</sub> x h <sub>(E)</sub> x d <sub>(F)</sub> : 29.3 x 48.5 x 23 inches (d +2.2" door handle)
Installation	on lockable castors
Housing	rear zinc-plated steel

### **Electrical data**

Voltage	230 V (± 10%), 50 Hz
Electrical load	approx. 1450 W / 6.4 A
Voltage	115 V (± 10%), 50/60 Hz
Electrical load	approx. 1450 W / 12.7 A

### **Ambient conditions**

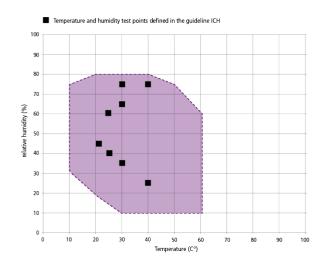
Set Up	The distance between the wall and the rear of the appliance must be at least 6". The clearance from the ceiling must not be less than 8" and the side clearance from walls or nearby appliances must not be less than 2".
Ambient temperature	15 °C to 28 °C (up to 34 °C with limited temperature range)
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-RegNo.	DE 66812464
Dimensions approx incl. carton	w x h x d: 35 x 56 x 32 inches
Net weight	approx. 241 lbs
Gross weight carton	approx. 303 lbs

#### 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

