

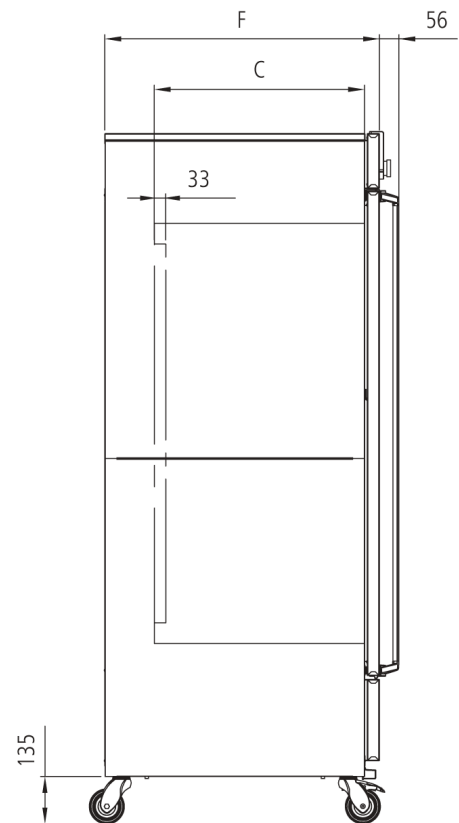
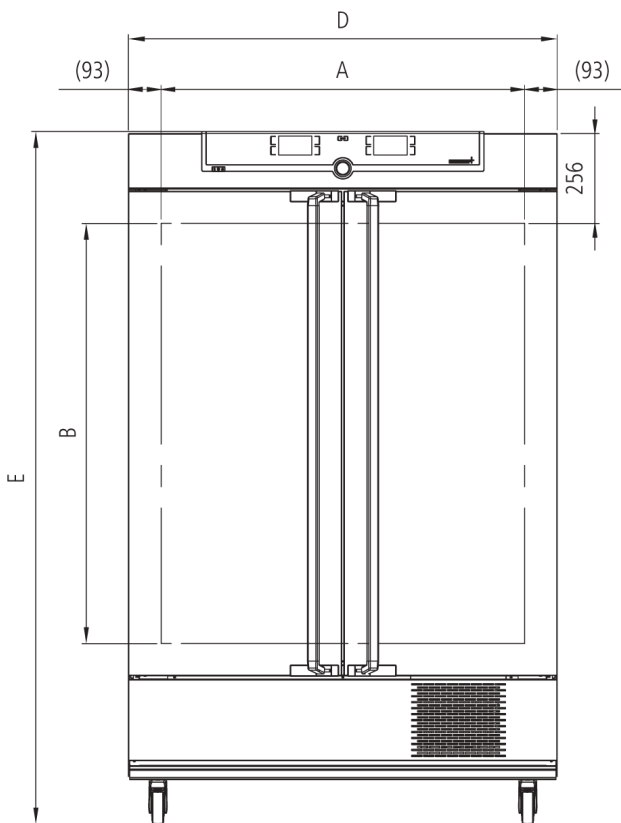


## Compressor-cooled incubator ICP450eco

Ideal for ramp operation with rapid temperature changes during incubation, breeding or storage.



With the help of our model selection, with dimensioned model sketches and extensive technical data for download, you can find the right cooled incubator for your needs. For small volumes and for work predominantly in the proximity of the ambient temperature, the Memmert Peltier-cooled incubator is recommended. Flexibility and technical features of our appliances meet all possible needs. Put us to the test!



## Temperature

<b>Working-temperature range</b>	from -12°C up to +60°C (Optimum performance of cooling aggregate at an ambient temperature of +16°C up to +34°C. Not suitable for long-term storing at sub-zero temperatures. During permanent operation, the glass door may ice over.)
<b>Setting accuracy temperature</b>	0.1 °C
<b>Temperature</b>	2 Pt100 sensors DIN Class A in 4-wire-circuit for mutual monitoring, taking over functions in case of an error

## Control technology

<b>ControlCOCKPIT</b>	TwinDISPLAY. Adaptive multifunctional digital PID-microprocessor controller with 2 high-definition TFT-colour displays.
<b>Language setting</b>	German, English, Spanish, French, Polish, Czech, Hungarian
<b>Timer</b>	Digital backwards counter with target time setting, adjustable from 1 minute to 99 days
<b>Function SetpointWAIT</b>	the process time does not start until the set temperature is reached
<b>Calibration</b>	three freely selectable temperature values
<b>adjustable parameters</b>	temperature (Celsius or Fahrenheit), fan speed, programme time, time zones, summertime/wintertime

## Communication

<b>Documentation</b>	programme stored in case of power failure
<b>Programming</b>	AtmoCONTROL software on a USB stick for programming, managing and transferring programmes via Ethernet interface or USB port

## Safety

<b>Temperature control</b>	mechanical temperature limiter TB, protection class 1 according to DIN 12880 to switch off the heating approx. 10°C above nominal temperature
<b>Temperature control</b>	over- and undertemperature monitor TWW, protection class 3.3 or adjustable temperature limiter TWB, protection class 2, selectable on display
<b>AutoSAFETY</b>	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
<b>Autodiagnostic system</b>	for fault analysis
<b>Alarm</b>	visual and acoustic

## Heating concept

<b>Cooling</b>	Cooling compressor with climate-neutral refrigerant CO2 (R744), GWP1
<b>Air jacket</b>	air jacket heating system for gentle all-around heating
<b>Heating concept</b>	no drying-up of the load caused by the cooling device due to separation of thermal jacket from interior
<b>Defrosting</b>	highly efficient automatic defrosting system

## Standard equipment

<b>Internals</b>	2 stainless steel grid(s), electropolished
<b>Works calibration certificate</b>	for +10°C and +37°C
<b>Door</b>	inner glass doors
<b>Door</b>	fully insulated stainless steel doors with 2-point locking (compression door lock)

## Stainless steel interior

<b>Dimensions</b>	$w_{(A)} \times h_{(B)} \times d_{(C)}$ : 1040 x 720 x 600 mm (d less 33 mm for fan)
<b>Volume</b>	449 l
<b>Max. number of internals</b>	8
<b>Max. loading of chamber</b>	200 kg
<b>Max. loading per internal</b>	30 kg

## Textured stainless steel casing

<b>Dimensions</b>	$w_{(D)} \times h_{(E)} \times d_{(F)}$ : 1224 x 1613 x 784 mm (d +56mm door handle)
<b>Installation</b>	on lockable castors
<b>Housing</b>	rear zinc-plated steel

## Electrical data

<b>Voltage</b>	230 V, 50 Hz
<b>Electrical load</b>	approx. 1200 W
<b>Voltage</b>	115 V, 50/60 Hz
<b>Electrical load</b>	approx. 1200 W

## Ambient conditions

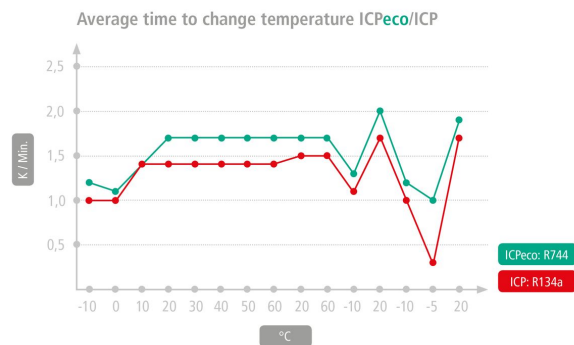
<b>Set Up</b>	The distance between the wall and the rear of the appliance must be at least 15 cm. The clearance from the ceiling must not be less than 20 cm and the side clearance from walls or nearby appliances must not be less than 5 cm.
<b>Ambient temperature</b>	15 °C to 28 °C (up to 34 °C with limited temperaturerange)
<b>Humidity rh</b>	max. 70 %, non-condensing
<b>Altitude of installation</b>	max. 2,000 m above sea level
<b>Overvoltage category</b>	II
<b>Pollution degree</b>	2

## Packing/shipping data

<b>Transport information</b>	The appliances must be transported upright
<b>Customs tariff number</b>	8419 8998
<b>Country of origin</b>	Federal Republic of Germany
<b>WEEE-Reg.-No.</b>	DE 66812464
<b>Dimensions approx incl. carton</b>	w x h x d: 1330 x 1700 x 1050 mm
<b>Net weight</b>	approx. 222 kg
<b>Gross weight carton</b>	approx. 287 kg

## Climate-neutral refrigerant CO<sub>2</sub> ensures better cooling performance

An ICP<sup>eco</sup> is not only environmentally-friendly, but also virtually maintenance-free and extremely powerful. Compared to appliances with R134a as refrigerant, it has faster temperature change rates during cooling-down. The refrigerant used in Memmert ICH<sup>eco</sup>/ICP<sup>eco</sup> appliances with the abbreviation R744 and the chemical molecular formula CO<sub>2</sub> is practically climate-neutral. In addition, R744 does not contain chlorine, is neither flammable nor toxic, does not cause ozone depletion in the atmosphere and does not need to be disposed of or recycled. Memmert cooled incubators ICP with refrigerant R134a will be available in parallel for a transitional period.



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

