

# ICHeco and ICPEco with climate-neutral refrigerant CO<sub>2</sub>

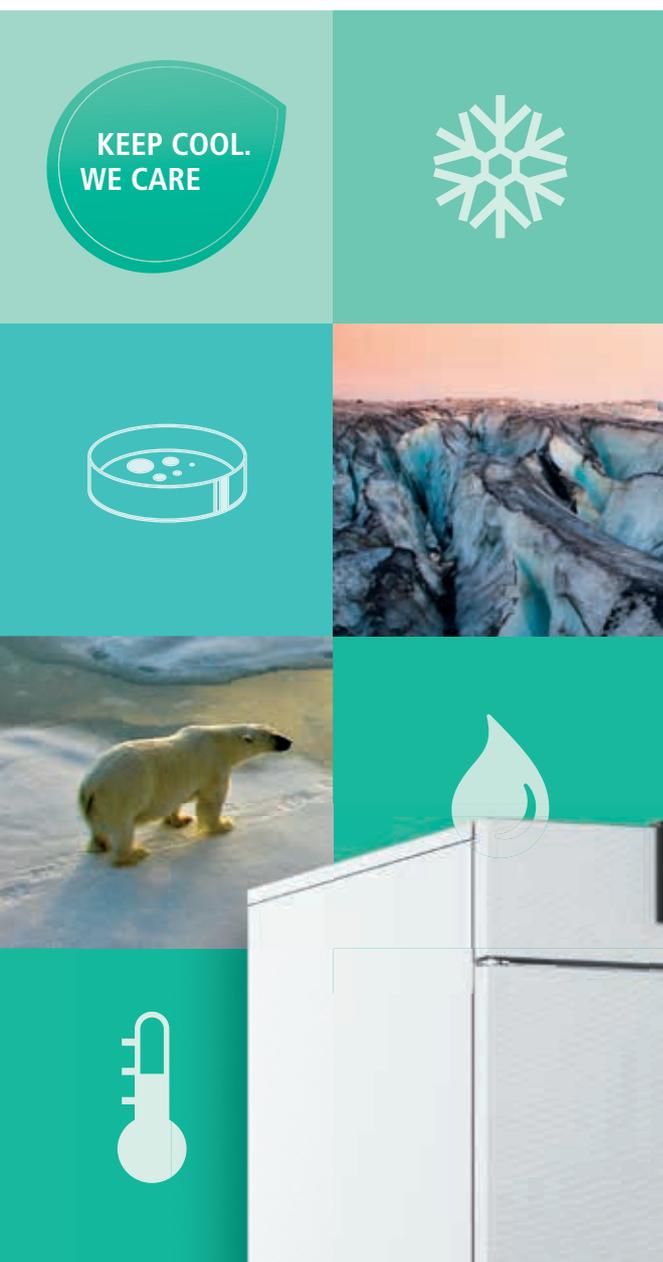
More environmentally-friendly and more powerful: The climate chamber ICHeco and the compressor-cooled incubator ICPEco work with climate-neutral CO<sub>2</sub> as refrigerant (R744).

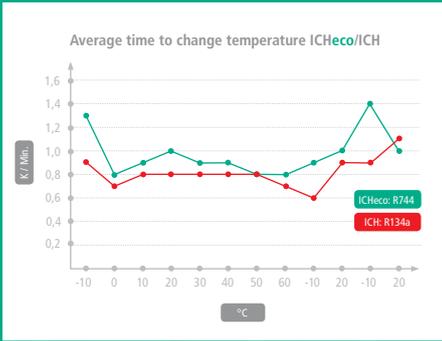
According to the EU regulation on fluorinated greenhouse gases (F-Gas Regulation), new commercial refrigerators with a GWP\* of more than 150 may no longer be sold in the EU from 1 January 2022. Memmert reacted early for several reasons: the new eco-appliances have a positive impact on the environmental balance of ecologically thinking companies, are virtually maintenance-free and score with improved cooling capacity.

The advantages of the Memmert cooling system with CO<sub>2</sub> cooling:

- Climate-neutral refrigerant with a GWP\* value of 1
- Environmentally-friendly: Refrigerant R744 is chlorine-free, is neither flammable nor toxic, does not need to be disposed of or recycled, and requires far less energy during manufacture
- Faster cooling thanks to better cooling capacity
- Virtually maintenance-free

\*The GWP value (Global Warming Potential) is used to compare the effects of substances on the warming of air layers near the ground and thus on the greenhouse effect. The refrigerant used in Memmert ICHeco/ICPEco appliances with the abbreviation R744 and the chemical molecular formula CO<sub>2</sub> has a GWP value of 1 and is therefore practically climate-neutral.





On average 20 % faster temperature change rates with a CO<sub>2</sub>-cooled compressor (measurement Memmert ICH750eco at ambient temperature +22 °C according to IEC 60068-3-5)

**KEEP COOL.  
WE CARE**



## Refrigerant CO<sub>2</sub> ensures better cooling performance

Memmert **eco**-appliances with CO<sub>2</sub> cooling are virtually maintenance-free and extremely powerful. Compared to appliances with refrigerant R134a, they score with faster temperature change rates during cooling.

## All-round protection of samples

In both appliances, the proven Memmert air jacket temperature control system ensures that both heat and cold are quickly and extensively introduced into the interior via four sides. The hermetically sealed working area offers numerous advantages: no dehumidification in the interior and thus no dehydration of sensitive samples and no icing over of the cooling aggregate.

## CO<sub>2</sub>-cooled climate chamber ICHeco

Powerful and environmentally-friendly at the same time: the climate chambers ICHeco are designed for testing pharmaceuticals according to ICH, Q1A and Q1B (option 2) as well as for testing the stability of cosmetics and foodstuffs. For photostability testing, the ICHeco L unit is available with an illumination unit.

Technical data of the Memmert CO <sub>2</sub> -cooled climate chambers ICHeco				
Model sizes	ICH260eco	ICH750eco	ICH260Leco	ICH750Leco
Volume, approx. l	256	749	256	749
Setting temperature range, °C	-10 to +60		0 to +60	
Setting humidity range, % rh	10 to 80			
Illumination unit acc. ICH Q1B option 2	-		●	

## CO<sub>2</sub>-cooled incubator ICPeco

Thanks to the excellent thermodynamic properties of the refrigerant CO<sub>2</sub> (R744) and the finely adjusted control technology, ICPeco is characterised by an outstanding cooling capacity and impressive precision. Without critical temperature overshoots, it keeps the temperatures exactly at the setpoint.

Technical data of the Memmert CO <sub>2</sub> -cooled incubators ICPeco			
Model sizes	ICP260eco	ICP450eco	ICP750eco
Volume, approx. l	256	449	749
Setting temperature range, °C	-12 to +60		

For detailed technical data, please refer to the Memmert incubator and climate chamber brochures or the internet [www.memmert.com/en/eco](http://www.memmert.com/en/eco).

[www.memmert.com](http://www.memmert.com) | [www.atmosafe.net](http://www.atmosafe.net)



Memmert GmbH + Co. KG | Postfach 1720 | D-91107 Schwabach

Tel. +49 (0) 9122 / 925 - 0 | Fax +49 (0) 9122 / 145 85 | E-Mail: [sales@memmert.com](mailto:sales@memmert.com)

[www.facebook.com/memmert.family](https://www.facebook.com/memmert.family) | Die Experten-Plattform: [www.atmosafe.net](http://www.atmosafe.net)