

Press Information

30.10.2008

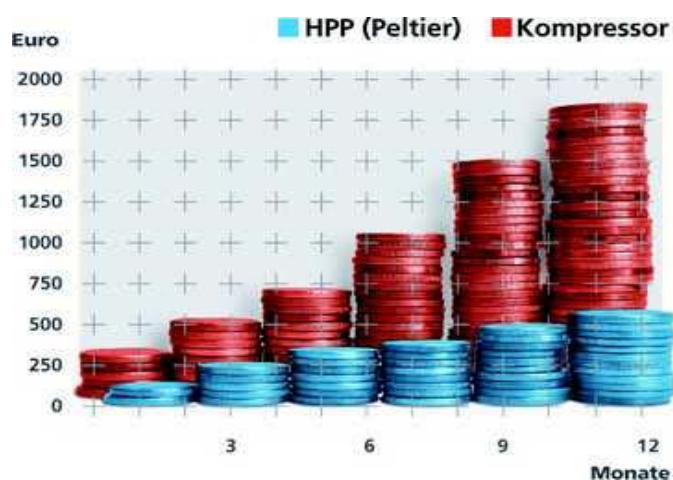
Green light for the HPP constant climate chamber from Memmert

Developed for reliable material tests in industry and research, specifically for ongoing-stability tests in accordance with the ICH for food and pharmaceutical products

The Memmert is justified in rating its solution for the simulation of constant climate conditions as a “world innovation“. At first glance this economical and energy-saving concept is convincingly simple, even though immense development and coordination efforts were involved, of course. In contrast to conventional appliances, the heating and cooling functions of the new HPP constant climate chamber are based on the innovative Peltier technology, which makes an energy-intensive compressor obsolete. Considerable savings in operating costs, along with a compact design, low-noise operation and an absolutely accurate digital humidity control herald the way to the green lab of the future.



Ecological thinking is economical



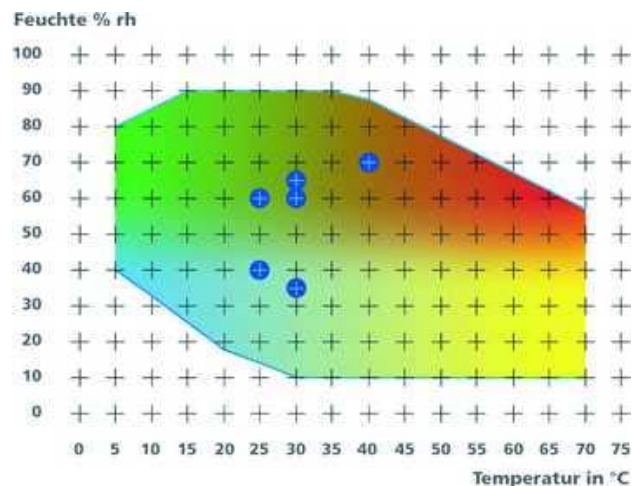
Green energy, green IT, green buildings – the need to cut back on energy consumption and to improve energy efficiency leads to intelligent concepts being developed in every field worldwide. In the laboratory sector, green concepts have been somewhat hidden in the shadows until now. Surely a bit of power consumption can hardly make any difference? Or perhaps it can? With its new HPP constant climate chamber, Memmert is bringing an appliance on the market that can confidently bear the label “climate-friendly“. A comparison with conventional compressor appliances shows that in a stability test lasting several months, energy costs can be reduced by up to 90%. In addition to this, no use is made in the HPP of refrigerants, which need to be disposed of with great care. The appliances are practically maintenance-free over many years, while operation is extremely

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quiet, and thanks to compact dimensions and efficient production, they represent an economic decision in terms of investment costs.

Precision through digital humidity control

The combination of Peltier technology for heating, cooling and dehumidifying, as applied by Memmert in its new constant climate chambers, is so far unique on the market. Even with a high ambient temperature and in regions with extremely high or low humidity, set temperatures and humidities are maintained exactly, since humidifying and dehumidifying are controlled digitally in the working range from 10 to 90% rh. This means that the strict requirements of the EU GMP Directive, which was supplemented on 1st June 2006 with the obligation to perform ongoing stability tests for all pharmaceutical products, as well as the requirements of the ICH (International Conference on Harmonisation of Technical Requirements for Registration of Pharmaceuticals for Human Use) are easily met.



Since the majority of stability tests are performed at temperatures between +20 °C and +30 °C, Memmert developers have fine-tuned the temperature control of the HPP specifically to the range from +5 °C to + 70 °C. The temperature fluctuations that are unavoidable in a temperature control chamber are therefore far below the required tolerances for every temperature /humidity constellation selected.

Captions

Figure 1: Memmert constant climate chamber HPP 108

Figure 2: Comparison of HPP (Peltier technology) energy costs with a conventional appliance (compressor-cooled) during a stability test in accordance with ICH (25 °C, 60% rh); calculated according to details from competitors

Figure 3: Temperature and humidity test points defined in the guideline

About the company Memmert

Memmert GmbH + Co. KG has for over 60 years been developing and producing temperature-control appliances for applications in research, development, medicine and industry. The spectrum ranges from ovens and waterbaths to special appliances such as cooling incubators, vacuum ovens, CO₂ incubators, constant climate and humidity chambers. The family company, in its third generation, is led by Christiane Riefler-Karpa, and has over 140 employees in its two locations of Schwabach and Büchenbach.

Responsible:

Angelika Henneberg

Marketing Manager

Memmert GmbH + Co. KG

P.O. Box 1720

D-91107 Schwabach

Phone: +49 9122 925-131

Email: ahenneberg@memmert.com

www.memmert.com