memmert
Experts in Thermostatics

10

good reasons for a Memmert

Leader in technology

For more than 60 years Memmert has remained true to itself

The success story of Memmert began in 1947. Since its establishment, the company's most important objective in the development of temperature control appliances has been: controlled atmosphere. All parameters such as temperature, humidity, CO_2- and O_2 content, light or pressure are controlled with the utmost precision. Inseparably linked to this are reliability, optimum temperature homogeneity and stability, user friendliness and an outstanding price/performance ratio. This promise to customers and users is called: 100% AtmoSAFE.

GENERATION 2012

Memmert's rhythm of innovation can also be heard in the 21st century. Heart and brain of Generation 2012 are the model variations SingleDISPLAY and TwinDISPLAY. They all have one thing in common: quick and intuitive operation thanks to the unique Memmert ControlCOCKPIT. The elegant display that has characterized the appliances for many years now becomes intelligent and interactive.

Scope of functions of the SingleDISPLAY model

- Clearly arranged control and display of temperature, programme runtime, fan speed and air flap position in the left display
- SetpointWAIT (details Chapter 3 Performance)
- Communication interface Ethernet

Additional functions of the TwinDISPLAY model

- Control and display of device specific parameters such as humidity as well as graphical display of the programme sequence in the right display
- AutoSAFETY (details Chapter 6 Safety)
- HeatBALANCE (details Chapter 3 Performance)
- User-ID (details Chapter 5 Convenience)
- USB-Port (details Chapter 5 Convenience)
- Individual limits for over/undertemperature, over/underhumidity
- Fan speed monitoring (optional)

Award-winning design made in Germany

The groundbreaking design concept of Generation 2012 was awarded the iF product design award 2013 in the medicine/health care category. This paramount quality is achieved through state-of-the-art technology, experience and constant user feedback. And, of course, with loving attention to detail. For this reason, Memmert designs and manufactures all important mechanical and electronic components in its own facilities.

Memmert is "made in Germany".

ControlCOCKPIT

Indispensable. Distinctive. Unique.

GENERATION 2012

- Fine glass and stainless steel. Generation 2012 with touch function.
- Touch, turn & go. Quick setup in three steps. Never before, a temperature control appliance has been easier to operate.
- A clear view of everything. Models with TwinDISPLAY additionally feature setting of device specific parameters and temperature monitoring, graphical display of the programme sequence and activation of the optional interior lighting in the right display.
- Versatile menu functions such as language settings, time zones and daylight saving time as well as the choice between Celsius and Fahrenheit.




Interface for programming and log function

- Remote access for reading out logs (SingleDISPLAY) and uploading programs (TwinDISPLAY)
- All appliances feature a data logger (storage capacity at least 10 years)
- All appliances with Ethernet interface
- USB port on appliances with TwinDISPLAY
- Individual allocation of IP addresses possible directly via ControlCOCKPIT

Performance

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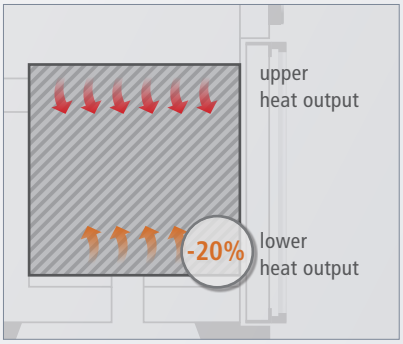
A strong character shows its sensitive side. In all Memmert appliances, heating performance, heating-up speed, air exchange rate and device specific parameters such as humidity or pressure are syntonised with the utmost precision and can also be adjusted by the user during operation. Therefore, the appliances' temperature stability is unparalleled, they save energy and last a scientist's half lifetime.

Unparalleled precision

GENERATION 2012

The Generation 2012 scores in all areas:

- Higher air flow rate and faster drying processes thanks to enlarged air intake and exhaust air vents.
- Fan speed and air flap position adjustable via the ControlCOCKPIT.
- Different loading types and volumes influence heat distribution in the chamber, particularly during heating-up. Thanks to the HeatBALANCE function, this can be compensated.
- By activating the SetpointWAIT function, the process time does not start before the set temperature is reached at all measuring points – optionally including freely positionable Pt100 sensors in the interior.
- Optimum distribution of temperature and humidity in Peltier-cooled appliances thanks to individual controllability of Peltier elements.



Simple but brilliant – All-round surface heating

Ideally, an equally heated cubic interior radiates heat in the same intensity from all sides. The smaller the heated surface in a temperature control chamber, the worse the temperature distribution. Punctually radiating ring heaters with an overall heating element length of one metre will probably even start to glow, making a gentle and accurate adjustment considerably more difficult to achieve. Heat transfer must be supported by motor-driven air circulation, dark loads are excessively heated and loads in shaded areas do not heat up properly.

Physics cannot be outsmarted, therefore the only way to achieve optimum temperature homogeneity and stability is the unique Memmert all-round surface heating system. Heating circuits surrounding the interior in ovens, incubators and sterilisers are individually controlled to exactly provide and hold the desired temperature at every point inside the chamber. The heating is not simply switched off when the set temperature is reached, but sensitively and evenly controlled according to requirements.

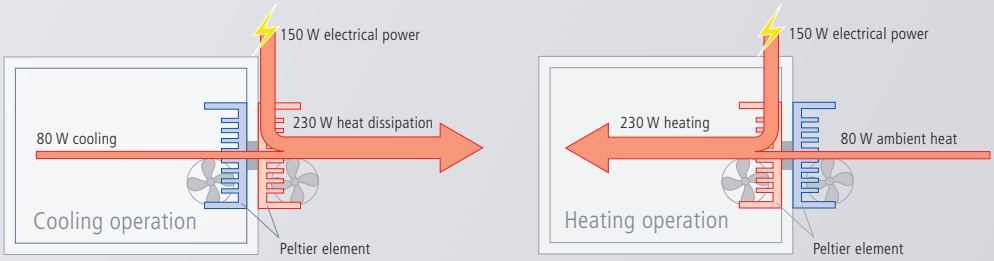
WORTH KNOWING
A Memmert oven with a chamber volume of 750 litres is surrounded by more than 52 metres of heating elements.

GreenLAB 4

The triumph of Peltier technology

At the turn of the millennium, Memmert opened a new chapter in its history of innovation. The heating and cooling process of the interior in temperature control appliances is by nature very energy intensive. Therefore, Memmert was the first manufacturer that consequently developed energy-efficient and environmentally friendly laboratory appliances.

WORTH KNOWING
No other manufacturer has more experience in Peltier technology and offers a greater variety of these precise and energy-efficient temperature control appliances than Memmert.



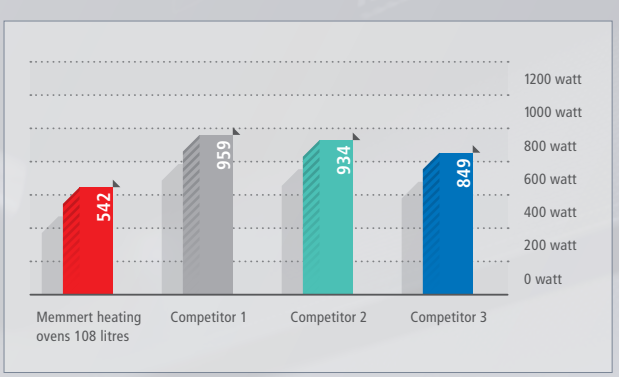
In contrast to compressor technology, Peltier technology works in a particularly economical and energy-saving manner at temperatures close to the ambient temperature, since energy is only required if heating or cooling is needed. Heating and cooling are perfectly fine-tuned.

In the same way as in a heat pump, in heating operation, thermal energy is removed from the ambient air and introduced into the chamber. Due to the closed Peltier cooling system, no outside air is exchanged. The advantages: No dehumidification of the chamber and heavily reduced risk of contamination.

Saving resources – a task for the future

At Memmert, every innovation is thoroughly tested with respect to its sustainability. Whether climate chambers or conventional heating and drying ovens, all appliances feature outstanding energy efficiency, thanks to their finely tuned control technology in connection with sophisticated individual heating concepts.

For Generation 2012 appliances, the insulation concept has been further optimised. Insulation of up to 90 mm and insulation inserts in the door are two important changes to almost completely prevent thermal bridges and thus heat emission from the chamber.



Heat emission at 250 °C, air flap closed

WORTH KNOWING
All Memmert appliances are made of stainless steel and thus nearly 100 % recyclable.

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Convenience

Convenient surface temperature

Better than any standard*: Thanks to the patented MEMMERT air circulation system, the surfaces and operating elements of Generation 2012 appliances only heat up moderately, even at a chamber temperature of 300 °C

* e.g. DIN EN 61010-1 (VDE 0411-1): 2011-07

International power connection

High-temperature connectors on the rear of the appliance for single-phase power connection according to country specific systems and IEC standards

USB port on a TwinDISPLAY model

- Standard for all TwinDISPLAY appliances
- Uploading programmes and reading out logs
- Protecting appliances with individual user-ID function, and much more…

Easy transport

- Recessed grips for safe carrying
- Easy handling in the laboratory

Opening the door as if by magic

- With the feet or elbows: Almost vibration-free opening and closing of the door, even if the hands are not free
- Unproblematic change of the door hinge to the left side also after commissioning

3-point calibration

For all appliances, three freely selectable calibration points for temperature, humidity, pressure, CO_2, etc. can be set directly via the ControlCOCKPIT.

Safety 6

Memmert is concerned about your safety as well as the safety of your chamber load. Therefore, all Memmert temperature control chambers feature an electronic temperature monitoring system, a mechanical temperature limiter acc. to DIN 12 880 and an integrated auto-diagnostic system with optical and acoustic alarm as a standard.

Even more safety in TwinDISPLAY models

TwinDISPLAY appliances are equipped with an overtemperature monitor as well as two high-grade Platinum temperature sensors Pt100 for mutual monitoring and operation transfer at same working temperature in case of an error. Particularly in ramp operation, the integrated temperature monitoring system AutoSAFETY can be activated to automatically follow the set temperature with a freely selectable tolerance. Individual MIN-/MAX-values can be set for over/undertemperature as well as for all other parameters like relative humidity, CO_2, O_2 and pressure (vacuum).

Fan speed

Certain standard applications require controlled fan function and fixed air exchange rates. Therefore, all TwinDISPLAY appliances can optionally be equipped with a fan speed monitoring system.

Automatic alarm

With the AtmoCONTROL software, alarm notifications can be sent out to an e-mail address. The optional MobileALERT makes it possible to send the alarm notifications by SMS to a mobile phone.

AtmoCONTROL software 7

Drag, drop & go!

User-friendliness and simple operation is the key factor of all Generation 2012 appliances. Naturally, the same applies to the newly developed control and logging software AtmoCONTROL. Simply drag & drop the graphical symbol for the required parameter in the programming field and let's go!

AtmoCONTROL for all appliances

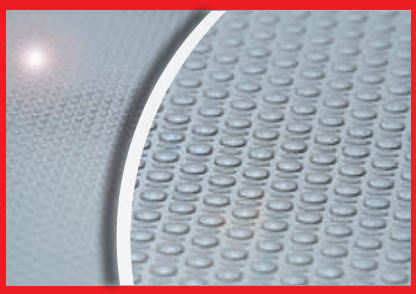
Thanks to the AtmoCONTROL software, the data logger of all Memmert appliances can be read out and saved as different file formats.

All TwinDISPLAY appliances are supplied with the AtmoCONTROL software on a USB stick and offer a multitude of possibilities for programming and documentation.

Stainless steel 8

Beautiful and functional

It is great when beauty and functionality do not exclude each other. But it is even better when beauty and functionality go hand in hand. Therefore, the outside of Memmert appliances has been distinctively designed with structured stainless steel for more than thirty years. Scratch-resistant and optically appealing for people who cherish aesthetic and modern design. It goes without saying that also the interior chamber is made of corrosion-resistant stainless steel that is easy to clean.



Service 9

Technical service – whenever, wherever

The technical service of Memmert has a demanding list of tasks. Supply of spare parts, maintenance, repair and commissioning, IQ/OQ/PQ qualification, customer training and software instruction. Good to know that a global network of service partners ensures that the users of Memmert appliances are never left alone with their questions.

myAtmoSAFE 10

Modifications and customised appliances

In cooperation with our customers' R&D departments, Memmert's customisation department provides support for complex applications and finds tailor-made solutions. Many customers are supported from development to production and sometimes this cooperation even leads to a world innovation. The first cooled vacuum oven for laboratory application: VOcool – MADE BY MEMMERT.

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