



Thermal chamber for abusive battery testing

Excal2 - 1900L

The business sector is focused on e-mobility, including the development of electric motors and battery energy storage systems. There is strong expertise in batteries, from cell to module level, primarily intended for the automotive industry. **The products tested include electronic components, materials, propulsion systems, and other equipment requiring resistance and durability testing under various climatic conditions.**

Research and development is advanced, **aiming to maximize product performance from an industrialization perspective**, for example for companies like Renault or Stellantis.

Complete systems or subassemblies are subjected to tests under various conditions, including charge cycles followed by rest periods. The goal is to **assess their behavior and energy storage capacity**, as well as to **identify the most suitable storage methods**.

Systems or subsystems are also tested at different temperatures, depending on their usage phases: charging, discharging, and storage. These tests help **validate their thermal performance and resilience under extreme conditions**.

An interface has been implemented between the client's test bench and the **Spirale interface, allowing the client to directly control the tests**.

The climatic chamber is now an integral part of the overall test bench, controlled by the client's system, with dedicated input and output connections designed to ensure optimal interconnection.

Spirale Vision

This chamber benefits from the **Spirale Vision** control offering a high regulation quality.

You would also appreciate the programming and archiving features this control system is known for. Spirale, already established in more than 6,000 environmental test chambers and test benches in the world, is the most intuitive and versatile human-machine interface on the market.

www.climats-tec.com

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TECHNICAL FEATURES

CHARACTERISTICS

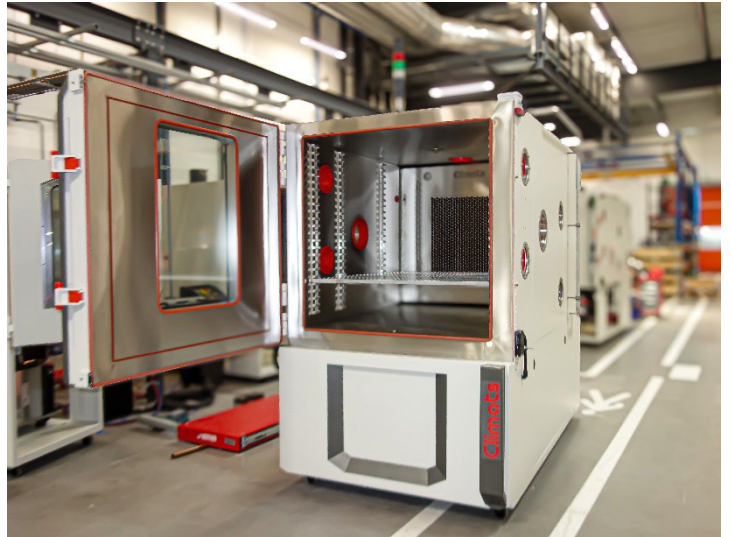
- ▶ **HL5 Security Level:**
 - Visual and audible alarms
 - Door locking via electromechanical lock
 - Pressure relief flap
 - CO sampling and detection line
 - Sprinkler system

DIMENSIONS

Dimensions (mm)	Width	Depth	Height
Useful	1150	1500	1120
Overall	1572	2865	2588

OPTIONS

- ▶ 2x T10Q - 66148597 - DN200 thin outer collar for ROXTEC equipment, **one on the right and one on the left, centered on the usable height and depth of the chamber.**
- ▶ The feedthrough is modular and can be upgraded to improve the test environment as needed.
- ▶ Air dryer: ensures a moisture-free environment.
- ▶ Power supply is maintained in the even



PERFORMANCES

- ▶ **Cooling rate from +80°C to -40°C (according to IEC 60068-3-5):**
 - 3.5°C/min unloaded
 - 1°C/min with a 500 kg load
- ▶ **Heating rate from -40°C to +80°C (according to IEC 60068-3-5):**
 - 3.5°C/min unloaded
 - 1°C/min with a 500 kg load



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Performance with a 500 kg load, point-to-point:



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