

Expert in environmental simulation

5.6m³ climatic chamber for battery tests

CHAMBER FOR TEST ON BATTERY

This environmental chamber is designed for testing large battery packs. It is adapted to the needs of manufacturers, designers and users of high-power batteries, in the electric transport sector.

This equipment is dedicated to carrying out thermal cycling tests of high-nuisance battery packs over long periods, up to the destruction of the cells or battery pack modules. The main purpose of these tests is to assess and qualify the lifespan of battery packs in accelerated aging.



With a useful volume of 5,6m³, this environmental chamber has a monobloc steel structure and a temperature range from -70°C to +180°C. The particularity of this equipment is the height position of its test cabinet, allowing free access under the chamber to position means of customer testing.

In order to test the battery packs until they break, we have equipped this solution with active and passive safety devices. A multi-parameter monitoring solution helps to manage the risks of fire starting (measurements of battery skin temperatures, measurement of the concentration of smoke released into the volume of the test cabinet, detection of flames). A disaster system, which manages multi-parameter monitoring, alerts users to a known risk, and triggers an automatic instant extinguishing system.

This chamber benefits from Spirale Vision control and its quality of regulation. You can also be able to appreciate the recognized programming and archiving features of this control system. Spirale, already present 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.

<u>Technical features:</u>

Temperature range : from -70°C to +180°C

Useful volume: 5,6m³

Admissible power at 0°C : 10 kW

Dimensions (mm)	Width	Depth	Height
Useful	1950	2200	1300
Overall	2150	3400	2400



Specificities:

Safety adapted to EUCAR 5

Performances:

Cooling rate from +120°C to -40°C (according to standard IEC 60068-3-5):

Higher than 3°C/min with a load of 500 kg

Heating rate from -40°C to +120°C (according to standard IEC 60068-3-5):

Higher than 3°C/min with a load of 500 kg



Note: volumes and loads are adjustable according to customer needs.

Performance with 500 kg load:

