

EXTREME 320

ESS - Very compact and extremely fast environmental chamber

FAST CHANGE RATE ENVIRONMENTAL TEST CHAMBER (ESS)

Designed to answer specifications in aeronautics and embedded electronics sectors.

Mainly devoted to the burn-in of electronic components, this equipment makes it possible to carry out temperature tests supporting high-speed variations. Performance and ergonomics are two advantages of the EXTREME 320, thanks to an useful volume of 320 litres combined with a small footprint on the ground.



The peculiarity of the EXTREME 320 is **reaching a linear speed from point to point equal to 15°C/min with load.**

For the record, the linear speed corresponds to the chamber instantaneous speed, in opposition of the average speed which defining a duration. In addition, the point-to-point speed is different from the speed given according to the IEC 60068-3-5 standard. Indeed, the IEC 60068-3-5 standard considers only 80% of the temperature range whereas the point - to - point speed considers it in its whole.

The fundamental quality of this machine is to obtain a linear velocity within the whole temperature range without generating over shoot or under shoot during the phases of arrival in regulation.

For this purpose, the EXTREME 320 benefits from the piloting software **Spirale Vision**, which can control the phases of arrival in regulation optimally. You will also be able to appreciate the recognized functionalities of programming and archiving of this piloting system. Spirale, already presents in the world on more than 5 000 environmental chambers and test benches, is the most intuitive and polyvalent man-machine interface on the market.

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Technical features

Caractéristiques :

Environmental chambers for temperature testing. Temperature range from +180°C to -80°C. Factory calibration table on 7 temperature points according to IEC 60068-3-5 (9 sensors).

Dimensions (mm)	Width	Depth	Height
Useful	750	500	850
Overall	1170	2000	2002

Options :

Connect your equipments :



2 portholes of 150mm diameter on each side, with insulated and flexible silicone plugs.



1 notched porthole to connect the products to the outside of the chamber without disconnection.

Adjust as close as possible to the product with 2 PT100 sensors :

1 control sensor & 1 mobile sensor

Spirale Vision allows you to regulate the setpoint temperature on the control sensor and also to display the temperature value of the moving sensor («product» sensor). Switch from the sensor to the «product» sensor with a single click.

Protect your products from condensation during the rapid temperature rise phases with **the complete anti-condensation device** :

o connection for injection of dry or neutral gas,

o 1 capacitive sensor used to measuring relative humidity,

o 1 air dryer

Performances :

- ▶ Average speed of 30°C/min, according to IEC 60068-3-5, without load from +110°C to -60°C.
- ▶ Average speed of 35°C/min, according to IEC 60068-3-5, without load from +80°C to -55°C.
- ▶ Average speed > 25°C/min, according to IEC 60068-3-5, without load from +180°C to -80°C in rise and fall.

- ▶ Linear speed of 20°C/min, without load, from +110°C to -60°C.
- ▶ Linear speed of 15°C/min, from +80°C to -50°C with a load of 20 kg of aluminum & a shelf.
- ▶ Linear speed of 15°C/min, from +110°C to -60°C with a load of 20 kg of aluminum & 100W of heat dissipation.

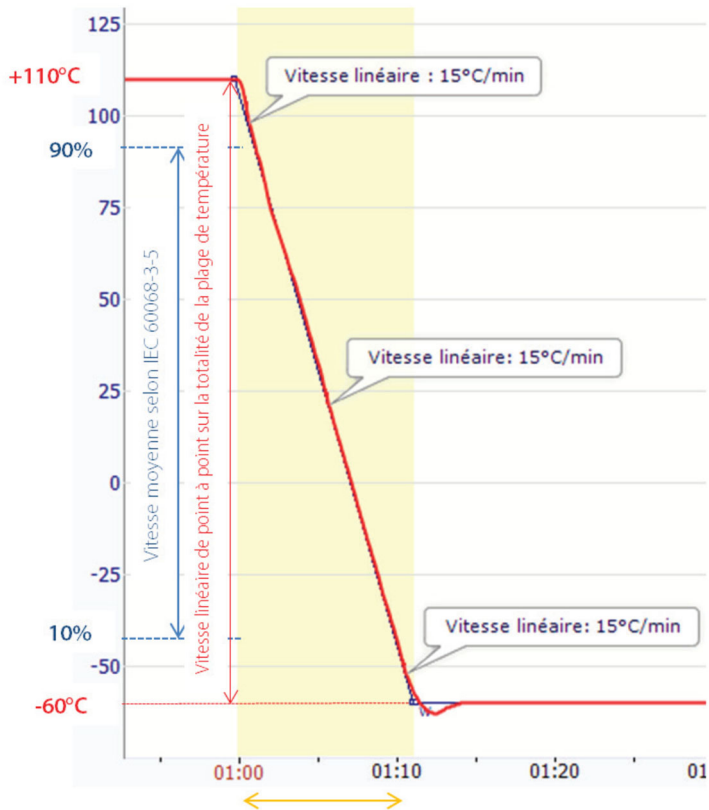
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Test conditions :

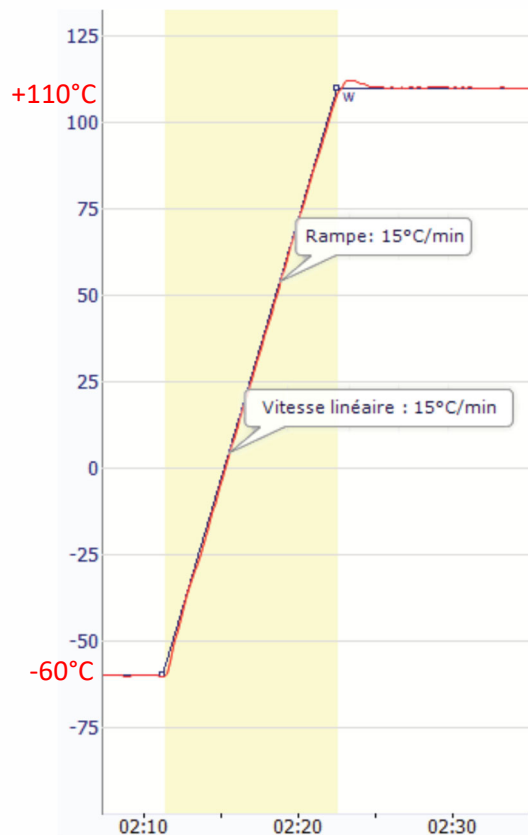
- ▶ 4 kg of aluminum
- ▶ Shelf
- ▶ 100W of heat dissipation

Temperature range :

+110°C to -60°C and -60°C to +110°C

Obtained results:

- ▶ Linear speed from point to point : +15°C/min in rise and fall
- ▶ 2°C overshoot and undershoot



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