

CTAH – Climatic Altitude Chamber 1m³ (35ft³) Icing Test for Batteries

Climatic altitude chamber 1m³ (35ft³)
Combined Temperature Vacuum Humidity
-65°C / +100°C
1 mbar (approx. altitude 106.4 kft)

Industries

Aeronautics and Li-Ion Batteries

Application

Performing climatic and altitude combined tests, Icing tests, as per DO160 norm, on batteries for aeronautics

Description of the equipment

- Test chamber with its conditioning unit at the back
- Remote machinery with electrical cabinet
- Command panel on the side/Command panel on the side
- Control and supervision software SPIRALE Vs



Technical Data

The performances are given for :

- An ambient temperature between +15°C and +35°C
- A constituted load of : 0kg
- A thermal load of : 0 kW

Temperature

From atmospheric pressure to 100 mbar (approx. altitude 52 kft)
Range : -65°C / +100°C
Cooling/heating rate : 10°C/min average between +100°C and -55°C

Humidity

Humidity range : 10% to 98% without dissipation and for a vacuum down to 150 mbar (approx. altitude 44.3 kft)
For temperature range : +10°C / +95°C
Humidity stability : $\leq \pm 5\%$ RH
Dew point range : +4 .. + 75°C

Vacuum

Range : from AP to 1 mbar, controlled down to 10 mbar
Variation speed : from AP to 20 mbar in 30 min
Control accuracy : ± 1 mbar from AP to 10 mbar

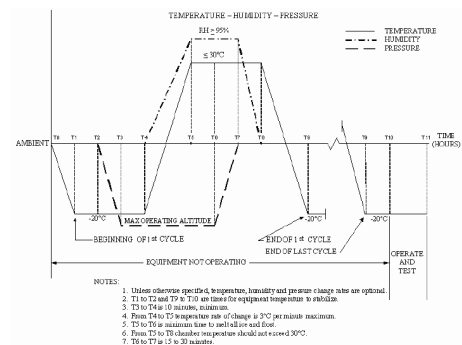
Safety for battery testing

- Redundant smoke detection system
- O₂ and N₂ level monitoring
- Overpressure flap
- GN₂ inerting and flushing system

Dimensions

| | Test Space Dimensions | External Dimensions | Remote Machinery |
|--------|-----------------------|---------------------|------------------|
| Width | 1000mm (39.4") | 1475mm (58.1") | 1600mm (63.0") |
| Depth | 1000mm (39.4") | 2930mm (115.4") | 4500mm (177.2") |
| Height | 1000mm (39.4") | 2600mm (102.4") | 2500mm (98.4") |

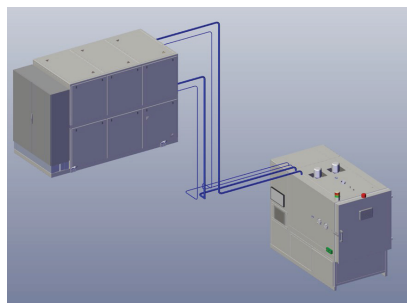
Icing test as per DO160 section 24 cat. B



Safety features for battery testing



Remote machinery



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