



terraXcube

Small cube

General Characteristics

Design	4 independent compartments accessible via a common airlock Built-in watering system Long-term experiments up to 6 months
Useful Internal Dimensions of the Compartments	2.8 m × 3 m × 2.8 m (L × W × H)
Parameters Control	Independent for each compartment
Other Functional Rooms	Lab and a store room for specimens' storage (fridges etc.)

Environment Control for Each Compartment

Feature	Value	Precision
Maximum Altitude	4,000 m ~ 13,000 ft	± 10 m equivalent
Maximum Rate of Climb (ROC)	6 m/s ~ 1,180 ft/min	
Minimum Rate of Climb (ROC)	0.1 m/s ~ 20 ft/min	
Temperature Range <small>According to IEC 60068-3-5</small>	-20°C / +50°C	± 1 K in time ± 2 K in space
Temperature Rate of Change <small>According to IEC 60068-3-5</small>	± 0.5 K/min cooling & heating	
Relative Humidity <small>T > 4°C and according to IEC 60068-3-6</small>	10% / 100%	± 3% in time ± 3% in space
Humidity Gradient <small>T > 4°C and according to IEC 60068-3-6</small>	0.4%/min cooling 0.8%/min heating	
Lighting System	Full solar spectrum 280-900 nm, intensity 2,500 µmol/m ² s	
O ₃ Control	50-300 ppb	
CO ₂ Control	400-1,000 ppm	

Support services offered

- Data security management: the system guarantees the integrity of data and makes sure that the data acquired are not accessible by unauthorized parties.
- Data-acquisition system
- Support during the whole testing chain: from experimental design to test execution and reporting