

Custom Product

Altitude Temperature (& Humidity) Chamber



With the proliferation of more diverse and portable electronic and electrical devices today, devices are being subject to use and storage in complex environments, and evaluation testing is required in those environments.

Combined pressure, temperature, and humidity environments can be reproduced to perform usage environment evaluation and storage evaluation at high altitude for electronic and electrical devices. Furthermore, this chamber provides a testing environment under reduced pressure. It is perfect for the detection of malfunctions of automobiles for which more electronic components are used during driving at higher elevations and for the evaluation of components intended for use in aircraft.

On ESPEC's testing chamber, you can set the pressure up to an altitude of 45,000 meters, so you can evaluate operation at low-pressure, low-temperature highlands and evaluate air transport.

Conformed test standards for aircraft components

JIS C 8712 (UN manual of Test and Criteria , PartIII, 38.3.4.1 Test T.1)	Safety requirements for portable sealed secondary cells
UL1642	Lithium batteries
MIL-STD-810C method 504.1 category 4	Altitude temperature test
JIS W 0812 (RTCA/D0-160D)	Aircraft on-board devices
JIS W 7114	Electric connector for aircraft

Conformed test standards for air transport and cabin environment

JIS C 60068-2-13	Environment test method (electricity/electronics) Low pressure tests
JIS C 60068-2-40	Combined cold/low air pressure tests
JIS C 60068-2-41	Combined dry heat/low air pressure tests

Other testing standards, and compatibility with system devices

Please contact our sales representatives for more information on the support status for RTCA/DO-160 Section 24 Icing.

Specifications

Model	Temperature range	Humidity range	Pressure range	Inner dimensions (mm)		
MZT-05S-L	-40°C to +100°C		101.3 to 33.4kPa	W800×H800×D700		
MZT-11S-L				W1000×H1000×D1000		
MZT-21S-L				W1500×H1000×D1000		
MZT-32S-L				W1500×H1500×D1500		
MZT-05S-H					101.3 to 0.1kPa	W800×H800×D700
MZT-11S-H						W1000×H1000×D1000
MZT-21S-H						W1500×H1000×D1000
MZT-32S-H						W1500×H1500×D1500
MZT-05H-L	-70°C to +180°C		101.3 to 33.4kPa	W800×H800×D700		
MZT-11H-L				W1000×H1000×D1000		
MZT-21H-L				W1500×H1000×D1000		
MZT-32H-L				W1500×H1500×D1500		
MZT-05H-H					101.3 to 0.1kPa	W800×H800×D700
MZT-11H-H						W1000×H1000×D1000
MZT-21H-H						W1500×H1000×D1000
MZT-32H-H						W1500×H1500×D1500
MZH-05S-L	-40°C to +100°C	20 to 95%rh	101.3 to 33.4kPa	W800×H800×D700		
MZH-11S-L				W1000×H1000×D1000		
MZH-21S-L				W1500×H1000×D1000		
MZH-32S-L				W1500×H1500×D1500		
MZH-05H-L	-70°C to +180°C					W800×H800×D700
MZH-11H-L						W1000×H1000×D1000
MZH-21H-L						W1500×H1000×D1000
MZH-32H-L						W1500×H1500×D1500

Example of custom Sliding door 

Pressure & temperature control range

Figure: Pressure/temperature control range of altitude test chamber (MZ Series)

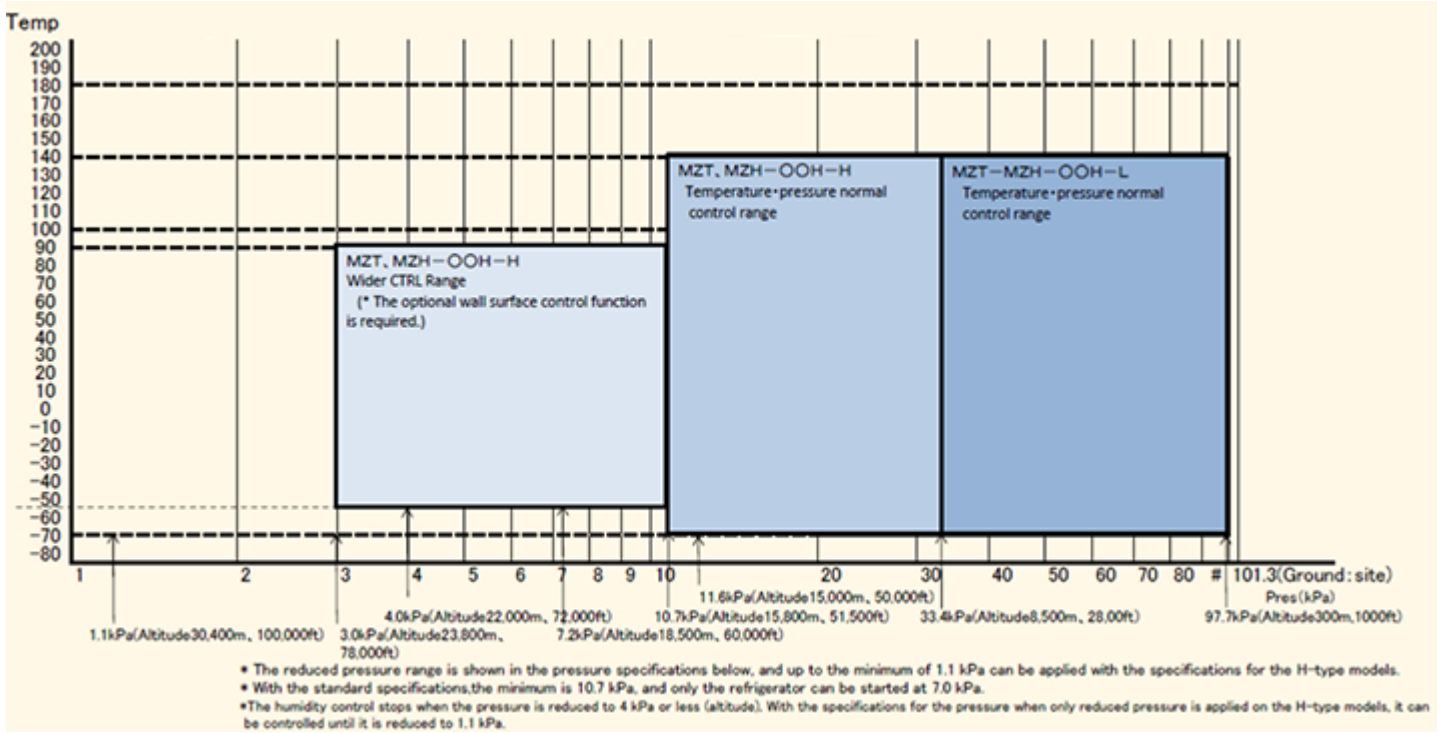
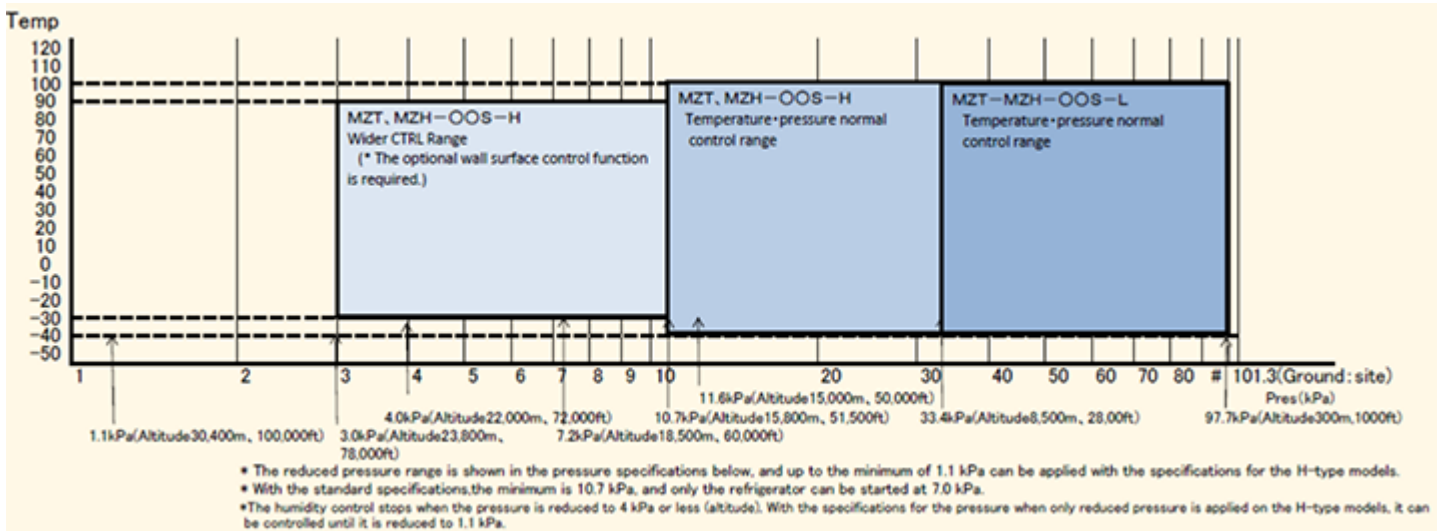


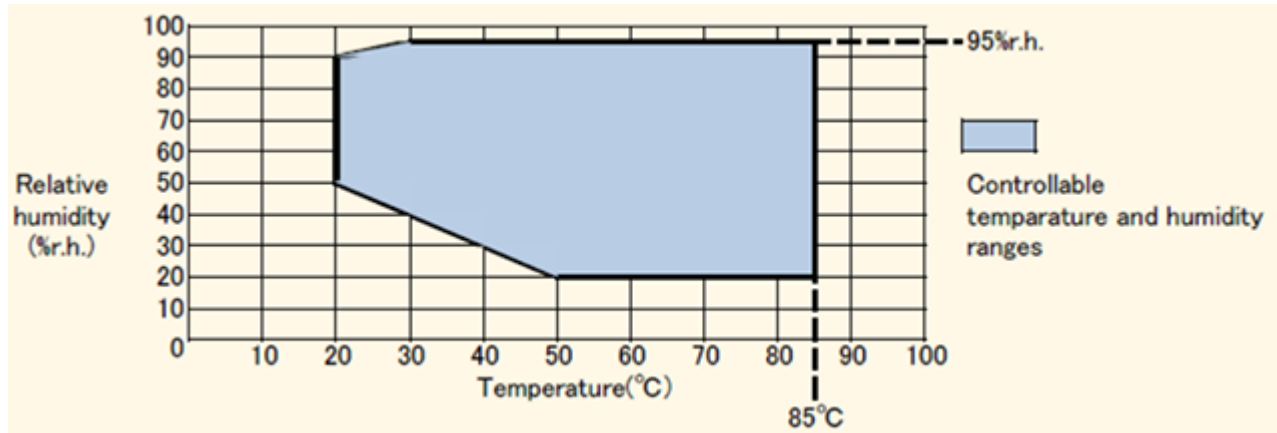
Figure: Pressure/temperature control range of altitude test chamber (MZ Series)



Temperature & humidity control range under atmospheric pressure

MZH-○○H-H, MZH-○○S-H Type

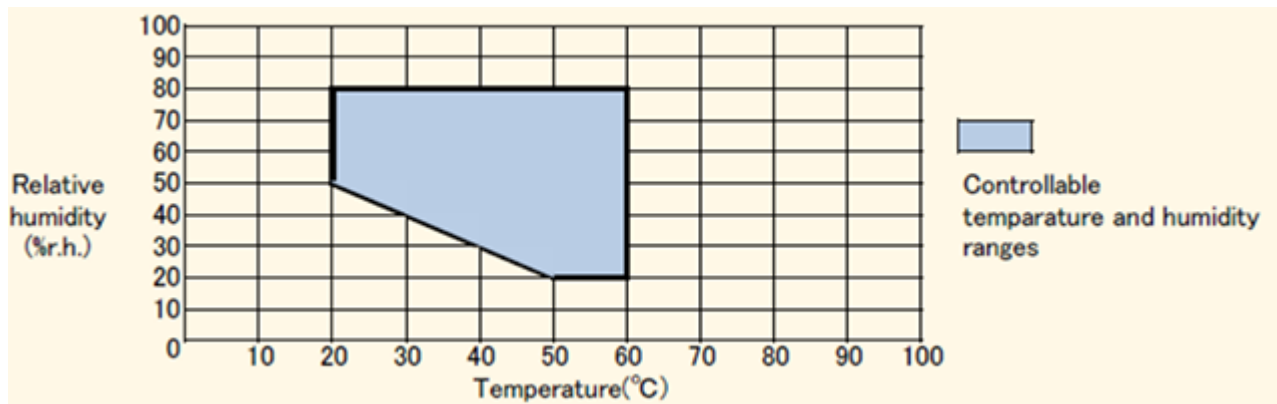
Temperature and humidity control range under atmospheric pressure



MZH-○○H-H, MZH-○○S-H Type

Atmospheric pressure and temperature and humidity control range under reduced pressure

Controllable range of vacuum-temperature and humidity, 93.3 ~ 70.9kPa (altitude 3,000m, 10,000ft)



* This model supports tests which require the control of temperature and humidity under reduced pressure. We can make suggestions to meet the requirements of customers. Please contact our sales representatives.

Option

- The addition of the wall surface control function (3 kPa -1.1 kPa) can expand the temperature/pressure control range to an equivalent altitude of 78,000 ft - 100,000 ft.

Examples

- Altitude Temperature (& Humidity) Chamber, Temperature and Humidity Chamber + Precision Air Supply Device

Specimen: H/V system

- Equips with high voltage-application terminal 10kV AC

Specimen: In-vehicle insulation materials

* This specification is for the validation of functional requirements of hybrid automobiles in use at high altitude.

Recommended products for customers viewing this product

Pressure
Temperature
Chamber

