



Custom Product

Combined Temperature & Humidity Chamber

Today, the automotive industry accelerates electronic multi-functions. According to this trend, safety standards such as ISO26262 and IEC61508 require high environmental stress that is generated by thermal shock chambers for higher reliability of vehicle equipments.

This chamber subjects specimens not only to temperature, humidity, and other atmospheric environmental stress but also to vibration, shock, acceleration and other physical (mechanical) environmental stress. Based on the Platinous series Temperature (& Humidity) Chamber, this model was jointly developed with vibration system manufacturers, which have a wealth of experience with vibration systems. ESPEC has a wealth of experience in this field in cooperation with by IMV, Shinken, and EMIC. Furthermore, these models can be connected to the rate turntable in addition to the vibration generator, another application in which we are highly experienced. These models use the same touch panel instrumentation screen adopted Platinous series.

Supporting safety devices

It is possible to equip the system with safety devices for testing flammable or gaseous specimens, including rechargeable batteries and fuel cells.

Typical devices:

- Pressure release vent
- Gas detector
- Forced ventilation system
- CO₂ gas extinguisher
- Safety lock mechanism

* Be sure to install the safety device if the specimens are Li-ion battery packs or Li-ion battery modules.

Main specifications

Model	Temperature (& humidity) range	Inside dimensions/outside dimensions (mm)
PVL-3KP	-40 to +100°C / 20 to 98%rh	W600×H850×D600 / W1840×H1910×D1173
PVL-5KP		W1000×H1000×D1000 / W2520×H2060 (2250) ×D1368
PVS-3KP	-70 to +100°C / 20 to 98%rh	W600×H850×D600 / W1840×H1910×D1173
PVS-5KP		W1000×H1000×D1000 / W2520×H2060 (2250) ×D1368
PVU-3KP	-40 to +100°C	W600×H850×D600 / W1840×H1910×D1173
PVU-5KP		W1000×H1000×D1000 / W2520×H2060 (2250) ×D1368
PVG-3KP	-70 to +100°C	W600×H850×D600 / W1840×H1910×D1173
PVG-5KP		W1000×H1000×D1000 / W2520×H2060 (2250) ×D1368

* The specifications of vibration devices (sign wave vibration test(fixed-frequency vibration, sweep vibration), random vibration test, shock test) will be adjusted according to the requirements of individual customers.

* The most suitable method will be proposed considering the customer's installation space and the requirements for coupling the system with the vibration generator (method: direct coupling to the chamber floor/coupling shaft, vibration: horizontal/vertical).

Examples

- PVS-5KPH + IMV i220 Direct coupling to the chamber floor method Specimen: Airbag inflator
- PVG-3KPH Coupled with rate turntable
- PVG-3KP + Shinken G21-210 Coupling shaft method

Recommended products for customers viewing this product

Vertical/Horizontal
Vibration Combined
Environmental Test
System



Multi-Vibration
Combined Standard
Environmental Test
System

