

CABINET ENVIRONMENTAL CRITERIA

Your OSP cabinets protect your most important equipment. That's why CommScope tests our cabinets in the harshest conditions. We test for safety and functionality against IEC 62638-1, GR and UL standards **to ensure your cabinets meet the toughest standard of all.**

Yours.

BASELINE TESTING

It confirms the cabinet's environmental and safety performance meet or exceed the Telcordia and UL standards below. Testing beyond the GR/UL standards is also available.

Telcordia testing includes:

- GR-487-CORE (Generic Requirements for Electronic Equipment Cabinets)
- GR-3108-CORE (Generic Requirements for Network Equipment)
- GR-63-CORE (NEBS Requirements: Physical Protection)
- GR-1089-CORE (EMC and Electrical Safety)

UL/CSA testing includes:

- UL/CSA-62368-1 (Communication Technology Equipment Safety Requirements)
- UL 50 (Enclosures for Electrical Equipment, Non-Environmental)
- UL 50E (Enclosures for Electrical Equipment, Environmental)
- UL 2416 (Equipment Cabinet, Enclosures and Rack Systems)
- UL 1801 (Investigation of Power Distribution for Communication Equipment)



BASIC ENVIRONMENTAL TESTING

Environmental testing of cabinets starts in development and continues into production as samples are tested to a defined plan that confirms specifications are met and demonstrates reliable performance.



Typically, these tests includes:

- **Low/high temperature storage**
at -40°C to 70°C for 72 hours following GR-3108
- **Cold and hot start**
at -40°C to 65°C following GR-3108
- **Heat exposure**
at +46°C + solar (or the maximum operating temperature) following GR487 Class 4 requirements.
- **Thermal shock**
at -40°C to 70°C for 144 hours following GR-487-CORE
- **Acoustics**
at levels <65 dBA adjustment can be made based on municipality requirements.
- **Salt fog**
testing for 30 days

Typically, these tests includes:

- **Lifting detail**
tested to 6X the weight of a fully loaded cabinet
- **Wind resistance (wall and pad mounted)**
tested up to a Category Five Hurricane
- **Earthquake resistance**
tested up to Zone 4
- **Wind-driven rain**
tested to 70mph for any water leakage
- **Transportation vibration/shock**



STRUCTURAL TESTING

Structural testing ensures the enclosure can meet a wide variety of environmental requirements designed to create a robust system. These requirements begin at the factory and last the life of the enclosure.

MATERIAL TESTING

Impact testing, Chemical and UV resistance of paint material.

SAFETY TESTING

As with any system, safety is a priority, with this in mind all cabinets are designed to meet both UL/CSA and Tecordia safety requirements.



Typically, these tests includes:

- **Bonding and grounding**
- **Battery compartment**
tested for proper ventilation when battery and electronic compartment separation is required
- **UL testing** based on:
 - ✓ Abnormal operating and fault conditions
 - ✓ Input testing
 - ✓ Electrical strength test
 - ✓ Unearthed accessible parts
 - ✓ Creepages and clearances

Customer specific testing:

Some customers may require additional testing beyond the standard GR and UL requirements. This testing can easily be incorporated into the setup.