



SEISMIC Tests Certificate

Delivered on: Tuesday, June 8th 2021

Applicable Standards:

- International Standard **IEC 60068-2-57:2013**: “*Environmental testing - Part 2-57: Test Ff: Vibration - Time-history method*”.

Other documents:

- International Standard **IEC 60068-2-6:2007**: “*Environmental testing – Part 2-6: Tests – Fc: Vibration (sinusoidal)*”.
- Point 5.4.1 of TELCORDIA TECHNOLOGIES Generic Requirements **GR-63-CORE**, Issue 5, December 2017: “*Earthquake Test Methods*”.
- International Standard **IEC 60068-2-47:2005**: “*Environmental testing - Part 2-47: Tests. Mounting of specimens for vibration, impact and similar dynamic tests*”.

Laboratory Name: VIRLAB, S.A.

Laboratory Address: Polígono Industrial de Asteasu, Zona B - 44
Apartado 247
20159 ASTEAU (SPAIN)

Client: LANDE ENDUSTRIYEL METAL URUNLER SAN. Ve TIC. AS.

Equipment tested: A Rack Cabinet

Certificate number “213201C”

NOTE: According to Section 7.8.2 of Standard ISO-IEC 17025:2017, it is stated that the results of the present certificate apply only and exclusively to the samples subjected to test and that the Laboratory is not responsible for the information and activities indicated as supplied or performed by the client.

THIS DOCUMENT HAS BEEN SIGNED ELECTRONICALLY. ANY PAPER REPRODUCTION WILL BE CONSIDERED A COPY



One (1) *Rack Cabinet* has been tested, described here below according to the information provided by LANDE:

- ✓ **Type B: one (1) Datacentre standard rack 47U 800 x 1200 mm Cabinet** (code LN-SRDC-ND-47U8012-LG-EGAA), weighed down with 780 kg of simulated masses.

Pictures included here below show the *Cabinet* on the test platform before the tests in vertical "Z", horizontal "X" (front to back) and horizontal "Y" direction (side to side).



The *Cabinet* described here above has been tested at VIRLAB facilities of Asteasu (SPAIN), on 27/05/2021, according to International Standard IEC 60068-2-57:2013.

Certificate number "213201C"

NOTE: According to Section 7.8.2 of Standard ISO-IEC 17025:2017, it is stated that the results of the present certificate apply only and exclusively to the samples subjected to test and that the Laboratory is not responsible for the information and activities indicated as supplied or performed by the client.

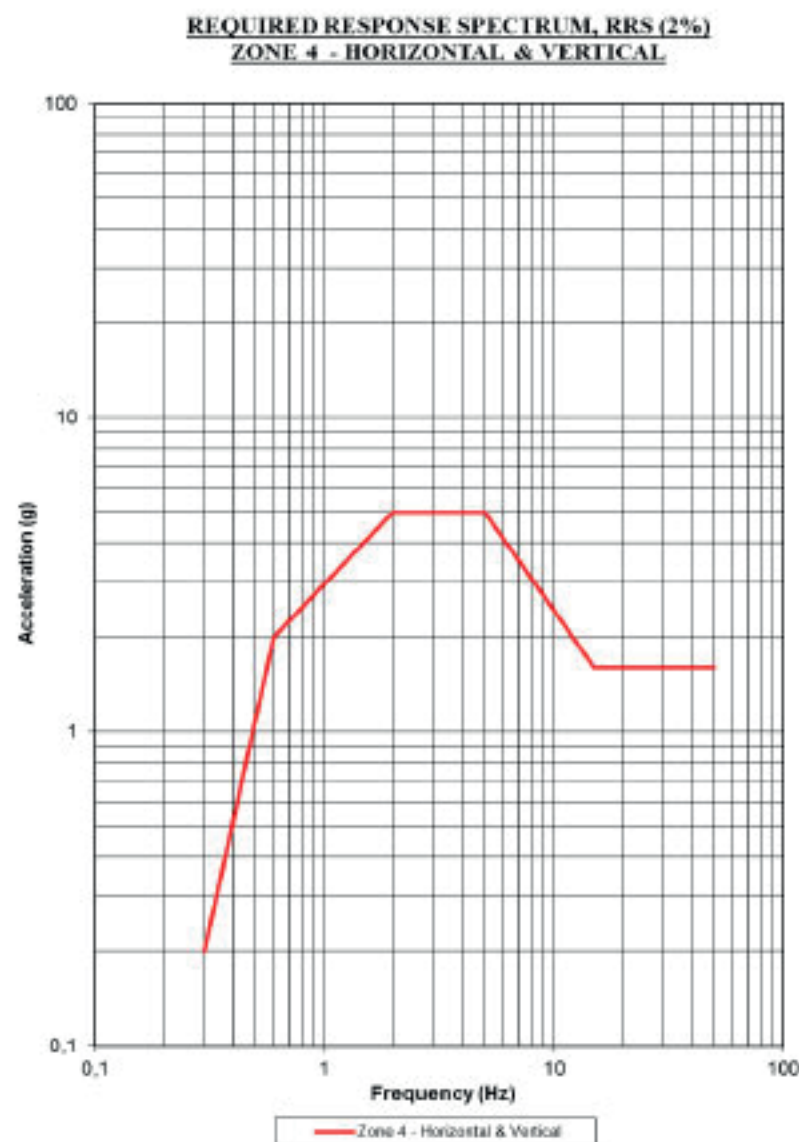
THIS DOCUMENT HAS BEEN SIGNED ELECTRONICALLY. ANY PAPER REPRODUCTION WILL BE CONSIDERED A COPY

The *Cabinet* has been submitted to the tests described here below:

- Resonance search tests, between 1 and 50 Hz, with an acceleration level of 0.1 g, independently performed in each one of the three main directions of the *Cabinet*, vertical "Z", horizontal "X" (*front-to-back*) and horizontal "Y" (*side-to-side*).
- Seismic tests, consisting of one (1) test, ~30 seconds duration, independently applied in vertical "Z", horizontal "X" (*front-to-back*) and horizontal "Y" (*side-to-side*) directions.

The level applied corresponds to **Zone 4** defined in point 5.4.1 of TELCORDIA TECHNOLOGIES Generic Requirements **GR-63-CORE**, Issue 5, December 2017, which considers a Zero Period Acceleration, ZPA, of 1.6 g.

The applicable Required Response Spectra, **RRS**, for a 2% damping, is the one described here below:



Certificate number "213201C"

NOTE: According to Section 7.8.2 of Standard ISO-IEC 17025:2017, it is stated that the results of the present certificate apply only and exclusively to the samples subjected to test and that the Laboratory is not responsible for the information and activities indicated as supplied or performed by the client.

THIS DOCUMENT HAS BEEN SIGNED ELECTRONICALLY. ANY PAPER REPRODUCTION WILL BE CONSIDERED A COPY



VIRLAB, S.A.
Division of URBAR INGENIEROS, S.A.
Vibration Test Laboratory

The front door of the *Cabinet* opened during the seismic test in horizontal “Y” (*side-to-side*) direction.

After the seismic tests to which the *Cabinet* has been subjected, no structural anomaly has been detected in the final visual inspection carried out in the laboratory.

Test report number 213201 of VIRLAB, S.A., will include all the information obtained, with tables, figures, photographs, and other relevant information.

Revised and authorized by:


Firmado
digitalmente por
Alberto CORRAL
Fecha: 2021.06.08
10:39:00 +02'00'

Alberto CORRAL
Technical Director

Carried out by:


Firmado
digitalmente por
Tristan Ugarte
Fecha: 2021.06.08
09:16:28 +02'00'

Tristan UGARTE
Laboratory Engineer

Certificate number “213201C”

NOTE: According to Section 7.8.2 of Standard ISO-IEC 17025:2017, it is stated that the results of the present certificate apply only and exclusively to the samples subjected to test and that the Laboratory is not responsible for the information and activities indicated as supplied or performed by the client.

THIS DOCUMENT HAS BEEN SIGNED ELECTRONICALLY. ANY PAPER REPRODUCTION WILL BE CONSIDERED A COPY

