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# SEISMIC Qualification Certificate

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**Delivered on:** Wednesday, 14 March 2018

**References:**

- **VIRLAB** test procedure number **160808E1**, issue 2, dated 20/02/2018: “*STANDARD TEST PROCEDURE FOR THE SEISMIC QUALIFICATION OF ELECTRICAL CABINETS ACCORDING TO GR-63-CORE (ZONE 4), ISSUE 4*”.
- **Point 5.4.1, Earthquake Test Methods**, of TELCORDIA TECHNOLOGIES GENERIC REQUIREMENTS, “**GR-63-CORE**”, Issue 4, April 2012:
- INTERNATIONAL STANDARD **IEC 60068-2-6:2007**: *Environmental testing – Part 2: Tests – Fc: Vibration (sinusoidal)*.
- INTERNATIONAL STANDARD **IEC60068-2-47: 2005**: “*Environmental testing - Part 2-47: Tests. Mounting of specimens for vibration, impact and similar dynamic tests*”.

**Laboratory Name:** **VIRLAB, S.A.** (accredited by ENAC, Spanish National Accreditation Entity).  
ENAC certificate number 54/LE131.

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

**Client:** **SILENTFLEX**

**Equipment tested:** Two (2) **Non Raised Floor Plinth**, manufactured by **SILENTFLEX**, assembled together with two (2) **Racks**, as described here below:

- Drawing: A150710 - STR – BANCADA GENERAL SUELO – BANCADA COMPLETA - R0, dated 01/09/2016
- Each Rack Dimensions: 800 (width) x 1200 (depth) x 2150 (height) mm
- Assembly Dimensions: 1600 (width) x 1200 (depth) x 2150 (height) mm
- Weight: ~750 Kg (*Rack*) + 100 Kg (*Bench*), for a total of 1700Kg

Pictures included here below show the **Assembly** on the test platform, in *front-to-back*, “X”, and *side-to-side*, “Y”, directions. Vertical tests have been performed with the **Assembly** on the test platform mounted on the same way as in the *side-to-side*, “Y”, direction.





“X & Z” Direction



“Y” Direction

**VIRLAB, S.A.**, certifies that the *Non Raised Floor Plinths* with the *Racks* described here above has been tested in its laboratory of ASTEASU (Spain) the 13<sup>nd</sup> March 2018, as describe in test procedure number **160808E1**, Issue 2, of VIRLAB, elaborated according to **Point 5.4.1**, *Earthquake Test Methods*, of TELCORDIA TECHNOLOGIES GENERIC REQUIREMENTS, “**GR-63-CORE**”, Issue 4.

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

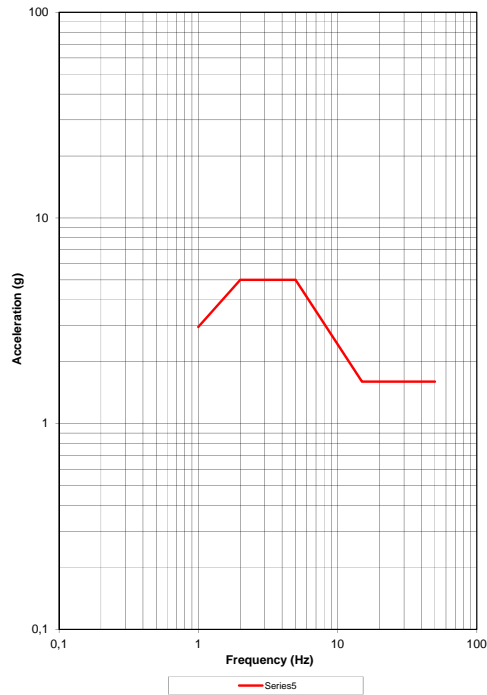
- Resonance search tests, between 1-50-1 Hz, with an acceleration level of 0.2 g, independently performed in each one of the three main directions of the *Assembly*, *vertical (Z)*, *front-to-back (X)*, and *side-to-side (Y)*.
- Seismic tests, consisting of one (1) test, 30 seconds duration, independently applied in vertical “Z”, and in horizontal, “X” (*front-to-back*) and “Y” (*side-to-side*) directions. The applicable Required Response Spectra, **RRS (2% damping)**, considers a Zero Period Acceleration of 1,6 g, as included here below:





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



REQUIRED RESPONSE SPECTRA, RRS (2%)  
ZONE 4 - HORIZONTAL & VERTICAL



This *Assembly* has successfully passed the Seismic Tests, to which it has been subjected, maintaining their structural integrity, without any anomaly or structural deterioration having been detected.

Test report number **182728** of **VIRLAB, S.A.**, will include all the information obtained, with tables, photographs, used measuring devices calibration certificates, and other relevant information.

**VIRLAB representative**

  
  
**Mr. Jon IRIZAR**  
Laboratory Engineer

