



McQuay Products Available With IBC 2009 Seismic Certification Vision™ & Skyline™ Air Handlers, RCS Condensing Units, RoofPak™ Rooftop Systems

McQuay has offered independent IBC 2000 and 2003 seismic certification on the above products for several years. This independent certification has been updated to meet IBC 2006 and 2009 requirements in accordance with ASCE chapter 7.

The basis of certification is a combination of shaker table testing of the active and energized components, per AC156, and analysis of the main-force resisting members of the unit. Additional calculations ensure components, accessories and options remain intact and attached to the unit under seismic load conditions.

There are two IBC 2006 and 2009 certifications:

- $F_p/W_p = 2.89$ g's. Certification is good for maximum Sds of 1.29 g's obtained from a "maximum considered earthquake short period spectral response acceleration" Ss of 1.93.
- $F_p/W_p = 4.42$ g's. Certification is good for maximum Sds of 1.96 g's obtained from a "maximum considered earthquake short period spectral response acceleration" Ss of 2.94.

Both certifications are based on ASCE 7 seismic maps for Soil Site Class B with 5% dampening. When installation soil sight properties are not known, the soil site coefficient F_a defaults to the soil site class D coefficient.

Only the structural engineer can determine whether or not our $F_p = 2.89$ or $F_p = 4.42$ certifications meet the job sight requirements. However:

- $F_p = 2.89$ is good for most of the United States. Exclusions are limited to portions of the Rocky Mountain states and the New Madrid fault. The only heavily populated areas not normally covered by $F_p = 2.89$ are about half of the coastal cities of California.
- $F_p = 4.42$ is normally good for all of the lower 48 United States except the most seismically demanding areas near the New Madrid fault.

A seismic importance factor of $I_p = 1.5$ applies to this certification to include post-event functionality of essential facilities and their life safety requirements.



All unit support must be seismically designed and approved to withstand the seismic anchor loads by the structural engineer of record. The installing contractor must install units correctly and in accordance with the structural engineer of record and McQuay installation manuals.

This independent certification is provided by The VMC Group as well as a structural engineer that is licensed and registered in the state of California.

For more information about seismic certification and McQuay products, contact your McQuay Sales Representative or visit www.mcquay.com.