

# ADDRESSING SEISMIC CONCERNS

## DID YOU KNOW ALL HUBBELL SUBSTATION ARRESTER FAMILIES HAVE SEISMIC QUALIFICATION?

IEEE 693-2005 is the governing document for the seismic qualification of substation equipment. Annex K details the seismic qualification of surge arresters. Seismic qualification according to IEEE 693-2005 requires all surge arresters above 90 kV duty-cycle voltage be qualified by time history shake-table testing. HPS offers seismically qualified arresters for applications ranging up to 500 kV. Table 1 includes an overview on HPS seismically qualified substation class surge arresters.

### SEISMIC ATTRIBUTES

- By virtue of “qualifying equipment by group” all arresters within the same product line are also qualified to IEEE 693, as long as the selected arrester does not exceed the listed height, mass and center of gravity of the tested arrester listed in table
- Peak acceleration during certification testing exceeded 6 g for some Hubbell arresters
- Both polymer and porcelain substation class arresters are qualified
- IEEE and IEC arresters are seismically qualified
- All VL and PVI-LP arresters under 35 kV duty-cycle voltage hold an inherently acceptable seismic qualification



PRODUCT LINE	ZPA* LEVEL (g)	MCOV CERTIFIED (kV)	HEIGHT (in)	CENTER OF GRAVITY (in)	MASS (lbs)
EVP	1.25	115	61	31.8	82
SVN/PH3/PH4	0.5	353	165	88.2	596
SVNH	1.0	318	152	80.8	829
SVNX	1.25	318	152	79.3	1080
MVN/MH3/MH4	1.0	335	160	80.5	898

\*Zero Period Acceleration (ZPA)

Hubbell Power Systems maintains certification test reports for every seismically certified product. Please contact your Hubbell Power Systems representative at 573.682.5521 for a copy of the certification reports.



Hubbell Power Systems, Inc. | [hubbelpowersystems.com](http://hubbelpowersystems.com)

©Copyright 2016 Hubbell Incorporated. Because Hubbell has a policy of continuous product improvement, we reserve the right to change design and specifications without notice.



Printed in the U.S.A. | SF\_01\_071E