



**FORELL/ELSESSER ENGINEERS, INC.**  
Structural Engineers

July 21, 2016

Michael Lafond  
Systems Manager  
General Electric  
41 Woodford Avenue  
Plainville, CT 06062

Re: GE Low Voltage Switchgear  
ASCE 7-10, 2015 IBC, 2016 CBC and IEEE-693-2005 Seismic and Special Seismic Certification

Forell/Elsesser has reviewed shake table test reports 8001, 8055, 8387, and 8916 prepared by Clark Testing Laboratory and test report 53022-1 prepared by Wyle Laboratories, which summarizes testing for the GE Low Voltage Switchgear. The testing was performed according to both the requirements of ICC-ES AC156 and IEEE-693-2005 and demonstrated that the equipment satisfied testing requirements for  $I_p=1.5$ , Site Class D,  $a_p=2.5$ ,  $R_p=6.0$ , and  $Z/h = 1.0$ . In accordance with ASCE 7-10, which contains the seismic provisions of the 2015 International Building Code [IBC] and 2016 California Building Code [CBC], AC156 is an acceptable test procedure for determining the seismic certification of equipment. ASCE 7-10, Section 13.2.1.2.b allows for testing alone to be used to satisfy IBC and CBC seismic qualification requirements for electrical equipment.

Using AC156 procedures, F/E determined that the test results demonstrate the adequacy of the GE Low Voltage Switchgear up to the peak ground seismicity ( $S_{DS}$ ) in the table below. Therefore, F/E concludes that the test data demonstrates that the GE Low Voltage Switchgear are certified for installation in accordance with the seismic provisions of the 2015 IBC and 2016 CBC for any site with a site-specific  $S_{DS}$  equal or less than the attached  $S_{DS}$  table and at any location within a building.

<b>AKD-10, AKD-20, AKD-20 AR, Entellisys Low Voltage Switchgear, and Powerbreak II &amp; AV3</b>						
	Dimensions (min-max)			Max. Weight	$S_{DS}(g)$	IEEE-693 Seismic Level
	Width	Depth	Height			
Powerbreak II & AV3	15"-22"	30"-50"	78"-104"	2,129 lbs	1.67	High
Entellisys Remote Control Stack	30"	30"	92"	1,100 lbs	1.67	High
AKD-10 Low Voltage Switchgear and Entellisys Version of AKD-10	15"-67"	60"-83"	78"-112"	4,250 lbs	1.58	High
AKD-20 and AKD-20 AR Low Voltage Switchgear and Entellisys Version of AKD-20 and AKD-20 AR	15"-67"	54"-83"	78"-112"	4,250 lbs	2.31	High

Notes:

1. Enclosures are indoor (NEMA-1) or outdoor (NEMA-3R) enclosures
2. Dimensions are for individual sections. Sections may be installed alone or bayed together.
3. Maximum height does not include 15"-high or 12"-high drip roof
4. All enclosures are rigid floor mounted

Should you any questions or need further information please do not hesitate to contact us.  
Thank you.

Sincerely,

FORELL/ELSESSER ENGINEERS, INC.

Marco Scanu, SE #4454  
Principal

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