



**OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT
FACILITIES DEVELOPMENT DIVISION**

**APPLICATION FOR OSHPD SPECIAL SEISMIC
CERTIFICATION PREAPPROVAL (OSP)**

OFFICE USE ONLY

APPLICATION #: OSP-0722

OSHPD Special Seismic Certification Preapproval (OSP)

Type: New Renewal

Manufacturer Information

Manufacturer: Schneider Electric

Manufacturer's Technical Representative: Ruslan Drofyak

Mailing Address: 12345 SW Leveton Drive, Tualatin, OR 97062

Telephone: _____ Email: Russ.Drofyak@se.com

Product Information

Product Name: Power Isolation and Correction Systems

Product Type: Power Isolation and Correction Systems

Product Model Number: PowerLogic EVC+ 100kvar Electronic VAR Compensation System

General Description: Electronic VAR control (EVC) units are static power electronic products that synthesize a current waveform to cancel load induced poor displacement power factor (DPF), phase current unbalance, and flicker in an electrical network.

Mounting Description: Rigid, Wall Mounted DATE: 12/14/2021

Tested Seismic Enhancements: None

Applicant Information

Applicant Company Name: Dynamic Certifications Laboratories

Contact Person: Kelly Laplace

Mailing Address: 1315 Greg St. Suite 109, Sparks, NV 89431

Telephone: (775) 358-5085 Email: kelly@shaketest.com

Title: Business Manager





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California Licensed Structural Engineer Responsible for the Engineering and Test Report(s)

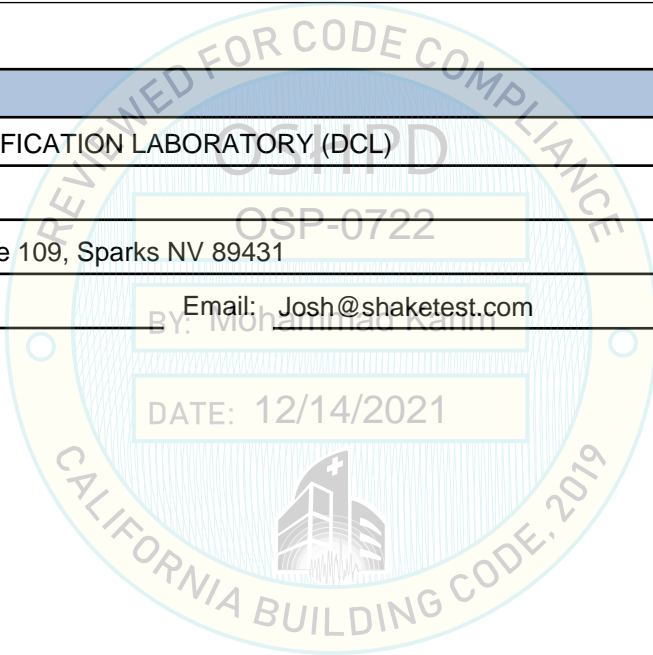
Company Name: THE VMC GROUP
Name: Kenneth Tarlow California License Number: S2851
Mailing Address: 980 9th Street, 16th Floor, Sacramento, CA 95814
Telephone: (832) 627-2214 Email: ken.tarlow@thevmcgroup.com

Certification Method

GR-63-Core ICC-ES AC156 IEEE 344 IEEE 693 NEBS 3
 Other (Please Specify): _____

Testing Laboratory

Company Name: DYNAMIC CERTIFICATION LABORATORY (DCL)
Contact Person: Josh Sailer
Mailing Address: 1315 Greg St., Ste 109, Sparks NV 89431
Telephone: (775) 358-5085 Email: Josh@shaketest.com





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Seismic Parameters

Design Basis of Equipment or Components (F_p/W_p) = See Certified Product Listing Table

SDS (Design spectral response acceleration at short period, g) = 2.47

a_p (Amplification factor) = 2.5

R_p (Response modification factor) = 6

Ω_0 (System overstrength factor) = 2.0

I_p (Importance factor) = 1.5

z/h (Height ratio factor) = 1 and 0

Natural frequencies (Hz) = See Attachment

Overall dimensions and weight = See Attachment

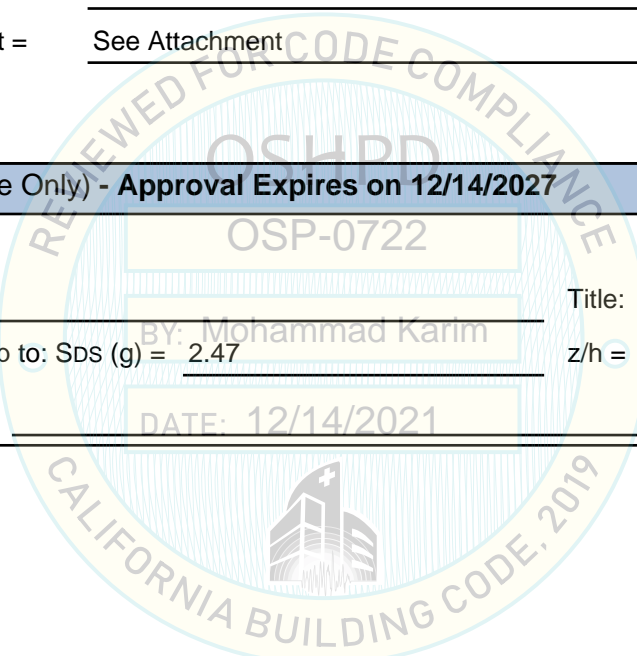
OSHPD Approval (For Office Use Only) - Approval Expires on 12/14/2027

Date: 12/14/2021

Name: Mohammad Karim Title: Supervisor, Health Facilities

Special Seismic Certification Valid Up to: SDS (g) = 2.47 z/h = See Above

Condition of Approval (if applicable): DATE: 12/14/2021





Certified Product Listing
PowerLogic EVC+ Electronic VAR Compensation System



DCL Project 80090-2101

Manufacturer: Schneider Electric Inc.
Product Category: Electronic VAR Compensation
Product Options: PowerLogic Electronic VAR Compensation in IP00 / IP20 / IP21 / IP31 / UL Type 1 / UL Type 2 Enclosures with kVAR ratings from 75 to 100kVAR and Voltage rating from 208 to 480VAC. See Certified Major Sub-Components Listing.
Product Mounting: Rigid Wall Mount

AccuSine Power Correction System												
Commercial Reference ^{1,3}	Enclosure Type ⁴	Voltage Rating (V)	kVAR Rating ² (kVAR)	Width (in.)	Depth (in.)	Height (in.)	Mass (lb.)	Test Status	Certification Level			
									Grade (z/h = 0)		Roof (z/h = 1)	
									S _{ds} (g)	F _p /W _p	S _{ds} (g)	F _p /W _p
EVCP075D5CH00	IP00	208 – 480	75	17.5	10.5	48.8	208	Extrapolated	2.47	0.62	2.47	1.85
EVCP100D5CH00	IP00	208 – 480	100	17.5	10.5	48.8	208	Extrapolated	2.47	0.62	2.47	1.85
EVCM100D5CH00	IP00	208 – 480	100	17.5	10.5	48.8	208	Extrapolated	2.47	0.62	2.47	1.85
EVCP075D5W20	IP20	208 – 480	75	17.5	10.5	48.8	208	Extrapolated	2.47	0.62	2.47	1.85
EVCP100D5W20	IP20	208 – 480	100	17.5	10.5	48.8	208	Extrapolated	2.47	0.62	2.47	1.85
EVCP075D5W01	UL Type 1	208 – 480	75	17.5	10.5	68.5	237	Same As UUT-02 ²	2.47	0.62	2.47	1.85
EVCP100D5W01	UL Type 1	208 – 480	100	17.5	10.5	68.5	237	UUT-02	2.47	0.62	2.47	1.85
EVCM100D5W21	IP21	208 – 480	100	20.5	14.0	66.5	350	UUT-01	2.47	0.62	2.47	1.85
EVCP075D5W31	IP31	208 – 480	75	20.5	14.0	66.5	350	Same As UUT-01 ³	2.47	0.62	2.47	1.85
EVCP100D5W31	IP31	208 – 480	100	20.5	14.0	66.5	350	UUT-01	2.47	0.62	2.47	1.85
EVCP075D5W02	UL Type 2	208 – 480	75	20.5	14.0	66.5	350	Same As UUT-01 ³	2.47	0.62	2.47	1.85
EVCP100D5W02	UL Type 2	208 – 480	100	20.5	14.0	66.5	350	UUT-01	2.47	0.62	2.47	1.85

Notes:

1. See attached nomenclature sheet for reference.
2. Max power rating (KVAR) is a firmware change only.
3. Alternate UUT model numbers represent a branding change only (IP/UL rating).
4. Enclosure types are constructed of galvanized carbon steel sheet with powder-coated finished front cover.

EVCP 100kvar NOMENCLATURE BREAKDOWN:

EVCP	100	D5	W01
I	II	III	IV

I. Basic Model Series
EVCP or EVCM

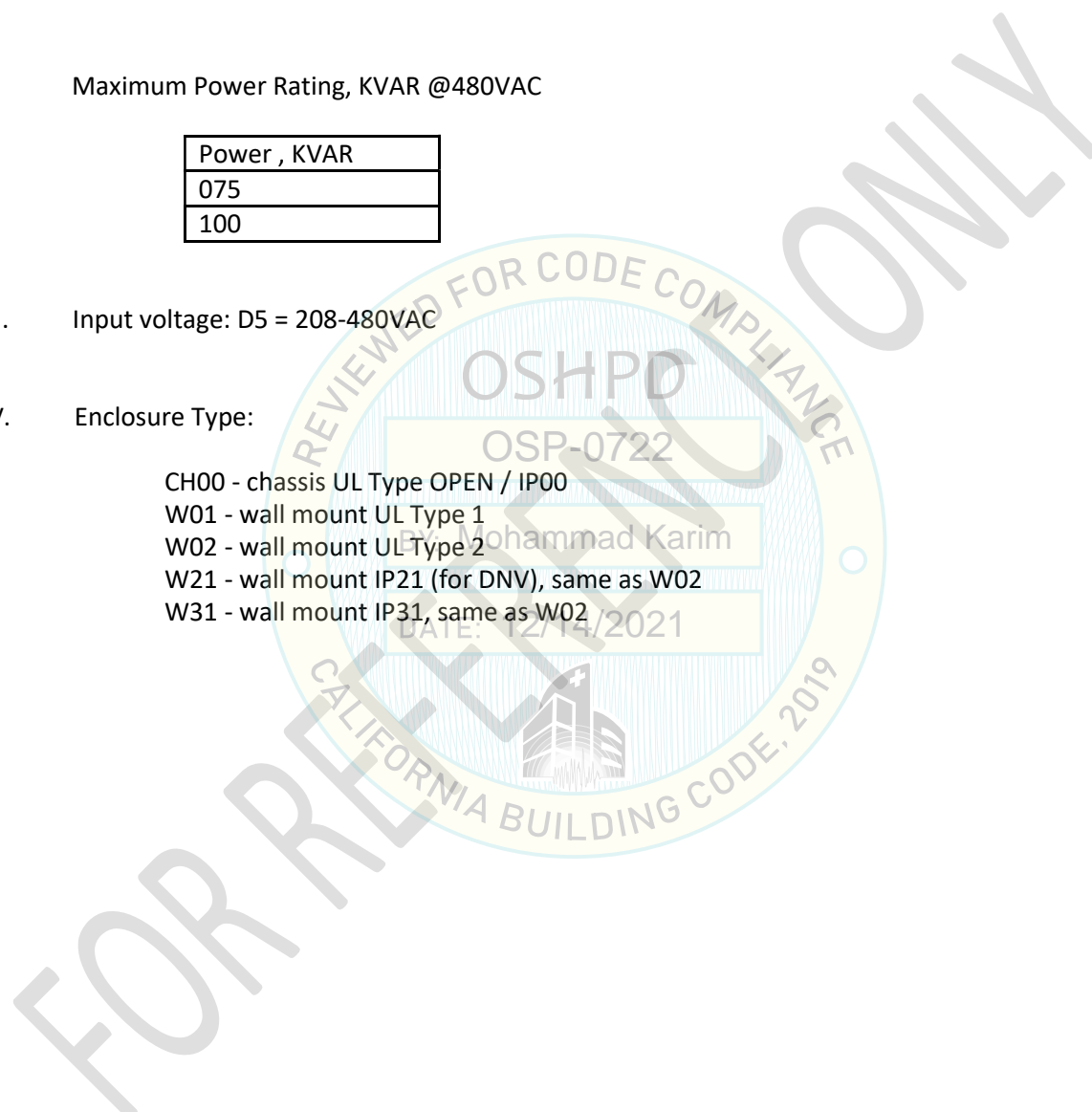
II. Maximum Power Rating, KVAR @480VAC

Power , KVAR
075
100

III. Input voltage: D5 = 208-480VAC

IV. Enclosure Type:

- CH00 - chassis UL Type OPEN / IP00
- W01 - wall mount UL Type 1
- W02 - wall mount UL Type 2
- W21 - wall mount IP21 (for DNV), same as W02
- W31 - wall mount IP31, same as W02





**Certified Major Sub-Components Listing – Covers All Enclosure Models
PowerLogic EVC+ Electronic VAR Compensation System**



DCL Project 80090-2101

Chassis Enclosure - Carbon Steel													
Enclosure Type / Identifier	Manufacturer	Rated Voltage (V)	Current (A)	(kVAR)	Width (in.)	Depth (in.)	Height (in.)	Mass (lb.)	Test Status	Certification Level			
										Grade (z/h = 0)		Roof (z/h = 1)	
										S _{Ds} (g)	F _p /W _p	S _{Ds} (g)	F _p /W _p
IP00 / IP20 / UL Open / UL 1 / IP21 / IP31 / UL 2	Schneider Electric	208-480	120-144	100	17.5	10.5	49.0	40	UUT-01, UUT-02	2.47	0.62	2.47	1.85
Enclosure - Carbon Steel													
IP21 / IP31 / UL 2	Schneider Electric	208-480	120-144	100	20.5	14.0	66.5	142	UUT-01	2.47	0.62	2.47	1.85
Notes: 1. The sub-components listed here include part numbers which provided identify configuration, manufacturer, and materials. Tested sub-components and interpolated items have the same manufacturer and materials and have similar configuration and construction as the tested units.													

UL1 Enclosure Extensions Housings - Carbon Steel													
Description / Identifier	Manufacturer	Option Type	Width (in.)	Depth (in.)	Height (in.)	Mass (lb.)	Test Status	Certification Level					
								Grade (z/h = 0)		Roof (z/h = 1)			
								S _{Ds} (g)	F _p /W _p	S _{Ds} (g)	F _p /W _p		
JYT30417 & NNZ68613	Schneider Electric	Inlet Housing & Grille	17.5	10.5	11.6	18	UUT-02	2.47	0.62	2.47	1.85		
JYT30418 & NNZ68614	Schneider Electric	Exhaust Housing & Grille	17.5	10.5	7.7	11	UUT-02	2.47	0.62	2.47	1.85		
Notes: 1. Enclosure extensions are constructed of carbon steel sheet, with powder-coated finish.													



**Certified Major Sub-Components Listing – Covers All Enclosure Models
PowerLogic EVC+ Electronic VAR Compensation System**



DCL Project 80090-2101

Part No. / Identifier	Manufacturer	Rated Voltage (VAC)	Rated Current (A)	Class	Test Status	Certification Level			
						Grade (z/h = 0)		Roof (z/h = 1)	
						S _{DS} (g)	F _p /W _p	S _{DS} (g)	F _p /W _p
Chassis Input Fuse									
JLLS200	Littelfuse	600	200	Class T	UUT-01, UUT-02	2.47	0.62	2.47	1.85

Part No. / Identifier	Manufacturer	Rated Voltage (VAC)	Rated Current (A)	Category	Test Status	Certification Level			
						Grade (z/h = 0)		Roof (z/h = 1)	
						S _{DS} (g)	F _p /W _p	S _{DS} (g)	F _p /W _p
Contactors									
LC1DT80ABD	Schneider Electric	600	160	AC-1	UUT-01, UUT-02	2.47	0.62	2.47	1.85

Part No. / Identifier	Manufacturer	Inductance (uH)	Rated Current (A)	Class R (deg C)	Test Status	Certification Level			
						Grade (z/h = 0)		Roof (z/h = 1)	
						S _{DS} (g)	F _p /W _p	S _{DS} (g)	F _p /W _p
Inductor									
HRB44062	Tamura	300	144	220	UUT-01, UUT-02	2.47	0.62	2.47	1.85

Part No. / Identifier	Manufacturer	Rated Voltage (V)	Capacitance (uF)	Temp (deg C)	Test Status	Certification Level			
						Grade (z/h = 0)		Roof (z/h = 1)	
						S _{DS} (g)	F _p /W _p	S _{DS} (g)	F _p /W _p
DC Bus									
B43456S9688M004	EPCOS	480	6800	85	UUT-01, UUT-02	2.47	0.62	2.47	1.85



**Certified Major Sub-Components Listing – Covers All Enclosure Models
PowerLogic EVC+ Electronic VAR Compensation System**



DCL Project 80090-2101

Part No. / Identifier	Manufacturer	Rated Voltage (V)	Rated Current (A)	Class T (deg C)	Test Status	Certification Level			
						Grade (z/h = 0)		Roof (z/h = 1)	
						S _{DS} (g)	F _p /W _p	S _{DS} (g)	F _p /W _p
IGBT									
12MBI100VX-120-xx	FUJI Electric	1200	100	80	UUT-01, UUT-02	2.47	0.62	2.47	1.85

Part No. / Identifier	Manufacturer	Voltage (VDC)	Current (A)	Temp (deg C)	Test Status	Certification Level			
						Grade (z/h = 0)		Roof (z/h = 1)	
						S _{DS} (g)	F _p /W _p	S _{DS} (g)	F _p /W _p
Cooling Fans									
PFR1224UHE-CE75	DELTA	24	0.15	75	UUT-01, UUT-02	2.47	0.62	2.47	1.85

Part No. / Identifier	Manufacturer	Rated Voltage (VAC)	Current Surge (kA)	Temp (deg C)	Test Status	Certification Level			
						Grade (z/h = 0)		Roof (z/h = 1)	
						S _{DS} (g)	F _p /W _p	S _{DS} (g)	F _p /W _p
MOV									
TMOV25SP385M	Littelfuse	620	20	85	UUT-01, UUT-02	2.47	0.62	2.47	1.85



**Certified Major Sub-Components Listing – Covers All Enclosure Models
PowerLogic EVC+ Electronic VAR Compensation System**



DCL Project 80090-2101

Part No. / Identifier	Manufacturer	Voltage (V)	Current (A)	Temp (deg C)	Test Status	Certification Level			
						Grade (z/h = 0)		Roof (z/h = 1)	
						S _{ds} (g)	F _p /W _p	S _{ds} (g)	F _p /W _p
Module Board									
QGH52336	Schneider Electric	480	144	75	UUT-01, UUT-02	2.47	0.62	2.47	1.85
Line Input Board									
GDE18638	Schneider Electric	480	144	75	UUT-01, UUT-02	2.47	0.62	2.47	1.85
BULK CAP Board									
NNZ66392	Schneider Electric	480	144	75	UUT-01, UUT-02	2.47	0.62	2.47	1.85
Control Board									
HRB21917	Schneider Electric	480	144	75	UUT-01, UUT-02	2.47	0.62	2.47	1.85
HMI									
Back: HMIS5T/ Front: HMIS85	Schneider Electric	480	144	75	UUT-01, UUT-02	2.47	0.62	2.47	1.85
Power Board									
QGH21173	Schneider Electric	480	20	85	UUT-01, UUT-02	2.47	0.62	2.47	1.85
Filter									
GDE71268	Schneider Electric	600	144	120	UUT-01, UUT-02	2.47	0.62	2.47	1.85
Pre Charge ASSY									
GDE18636	Schneider Electric	600	144	120	UUT-01, UUT-02	2.47	0.62	2.47	1.85

DCL Project 80090-2101

UUT Product Information			
Manufacturer	Product Category	Product Line Model	Model Number
Schneider Electric Inc.	Active VAR Control	PowerLogic AccuSine EVCP 100kvar	EVCP100D5W02/21/31 EVCP075D5W02/21/31

UUT Test Report Association				
Test Lab	Report No.	Report Date	Test Run No.	UUT Designation
Dynamic Certification Laboratories	DCL No. 23612-2101-AC156	04/14/2021	1	UUT-01

UUT Notes / Description
<ol style="list-style-type: none"> 1. The UUT is a wall mounted Active VAR Control as a IP00/IP20 inside IP31/21/UL2 enclosure. 2. The enclosure is constructed of galvanized carbon steel sheet with powder-coated finished front cover.

UUT Properties (As Tested)								
Weight (lb.)	Dimensions (in.)			Lowest Natural Frequency (Hz)			Shake-Table Attachment	
	Height	Width	Depth	F-B	S-S	V	Type	Anchorage
350	66.5	20.5	14	N/A	N/A	N/A	Rigid wall mounted	(4) 3/8" diameter Grade 5 bolts at 40 ft-lbs torque.

UUT Seismic Test Parameters									
Building Codes	Test Criteria	S _{DS} (g)	z/h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)	
ASCE 7-10 / IBC 2018 / CBC 2019	ICC-ES AC156 (2019)	2.47	0	1.5	2.47	0.99	1.65	0.66	
		2.47	1	1.5	3.95	2.96	1.65	0.66	

UUT Seismic Test Results	
✓	The UUT maintained structural integrity and functionality as confirmed in post test inspection and active operation validation checks



UUT Major Components		
Description	Manufacturer	Part No. / Identifier
Chassis Enclosure - Carbon Steel	Schneider Electric	IP00 / IP20 / UL Open / UL 1 / IP21 / IP31 / UL 2
Enclosure - Carbon Steel	Schneider Electric	IP21 / IP31 / UL 2
Chassis Input Fuse	Littelfuse	JLLS200
Contactors	Schneider Electric	LC1DT80ABD
Inductor	Tamura	HRB44062
DC Bus	EPCOS	B43456S9688M004
IGBT	FUJI Electric	12MBI100VX-120-xx
Cooling Fans	DELTA	PFR1224UHE-CE75
MOV	Littelfuse	TMOV25SP385M
Module Board	Schneider Electric	QGH52336
Line Input Board	Schneider Electric	GDE18638
BULK CAP Board	Schneider Electric	NNZ66392
Control Board	Schneider Electric	HRB21917
HMI	Schneider Electric	Back: HMIS5T/ Front: HMIS85
Power Board	Schneider Electric	QGH21173
Filter	Schneider Electric	GDE71268
Pre Charge ASSY	Schneider Electric	GDE18636

PowerLogic EVC+ Electronic VAR Compensation System

UUT Product Information			
Manufacturer	Product Category	Product Line Model	Model Number
Schneider Electric Inc.	Active VAR Control	PowerLogic AccuSine EVCP 100kvar	EVCP075D5W01 / EVCP100D5W01

UUT Test Report Association				
Test Lab	Report No.	Report Date	Test Run No.	UUT Designation
Dynamic Certification Laboratories	DCL No. 80090-2101-AC156	11/05/2021	1	UUT-02

UUT Notes / Description
<ol style="list-style-type: none"> 1. The UUT is a wall mounted Active VAR Control as a IP00/IP20 with addition of Top cover, Bottom Box and grills. 2. The enclosure is constructed of galvanized carbon steel sheet with powder-coated finished front cover.

UUT Properties (As Tested)								
Weight (lb.)	Dimensions (in.)			Lowest Natural Frequency (Hz)			Shake-Table Attachment	
	Height	Width	Depth	F-B	S-S	V	Type	Anchorage
237	68.5	17.5	10.5	N/A	N/A	N/A	Rigid wall mounted	(4) 3/8" diameter Grade 5 bolts at 40 ft-lbs torque.

UUT Seismic Test Parameters									
Building Codes	Test Criteria	S _{DS} (g)	z/h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)	
ASCE 7-10 / IBC 2018 / CBC 2019	ICC-ES AC156 (2019)	2.47	0	1.5	2.47	0.99	1.65	0.66	
		2.47	1	1.5	3.95	2.96	1.65	0.66	

UUT Seismic Test Results
<input checked="" type="checkbox"/> The UUT maintained structural integrity and functionality as confirmed in post test inspection and active operation validation checks



UUT Major Components		
Description	Manufacturer	Part No. / Identifier
Chassis Enclosure - Carbon Steel	Schneider Electric	IP00/IP20/UL Open/UL 1/IP21/IP3/UL 2
UL1 Enclosure Extensions Housings - Carbon Steel	Schneider Electric	JYT30417 & NNZ68613
UL1 Enclosure Extensions Housings - Carbon Steel	Schneider Electric	JYT30418 & NNZ68614
Chassis Input Fuse	Littelfuse	JLLS200
Contactors	Schneider Electric	LC1DT80ABD
Inductor	Tamura	HRB44062
DC Bus	EPCOS	B43456S9688M004
IGBT	FUJI Electric	12MBI100VX-120-xx
Cooling Fans	DELTA	PFR1224UHE-CE75
MOV	Littelfuse	TMOV25SP385M
Module Board	Schneider Electric	QGH52336
Line Input Board	Schneider Electric	GDE18638
BULK CAP Board	Schneider Electric	NNZ66392
Control Board	Schneider Electric	HRB21917
HMI	Schneider Electric	Back: HMIS5T/ Front: HMIS85
Power Board	Schneider Electric	QGH21173
Filter	Schneider Electric	GDE71268
Pre Charge ASSY	Schneider Electric	GDE18636