APPLICATION FOR OSHPD SPECIAL SEISMIC CERTIFICATION PREAPPROVAL (OSP)

OFFICE USE ONLY	
APPLICATION #:	OSP – 0389

OSHPD Special Seismic Certification Preapproval (OSP)

Type: ☐ New ☒ Renewal

Manufacturer Information

Manufacturer: Schneider Electric IT Business

Manufacturer's Technical Representative: Vinay Kumar N.P.

Mailing Address: No 254 to 258, 3rd Floor, Left Wing, Bommasandra-Jigani Link Road, Bangalore, India

Telephone: +91 80 67361000 x61344 Email: Vinaykumar.nakka@se.com

Product Information

Product Name: Galaxy VM

Product Type: Uninterruptible Power Supply (UPS)

Product Model Number: Varies (see attachment)
(List all unique product identification numbers and/or part numbers)

General Description: UPS system consisting of Power Sections, I/O Sections, Bypass Cabinets, Transformer Cabinets, Battery Cabinets, and Battery Breaker Boxes. Seismic enhancements made to the test units and modifications required to address anomalies observed during the tests shall be incorporated into the production units

Mounting Description: Base mounted – Rigid and Wall mounted - Rigid

Applicant Information

Applicant Company Name: TRU Compliance, by Structural Integrity Associates, Inc

Contact Person: Galen Reid

Mailing Address: 233 SW Wilson Ave, Suite 101, Bend, OR 97702

Telephone: 844-TRU-0200 Email: greid@structint.com

I hereby agree to reimburse the Office of Statewide Health Planning and Development review fees in accordance with the California Administrative Code, 2016.

Signature of Applicant: Date: 12/30/2019

Title: Program Manager Company Name: TRU Compliance, by Structural Integrity Associates, Inc

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

Company Name: TRU Compliance, by Structural Integrity Associates, Inc

Name: Andy Coughlin, SE California License Number: S6082

Mailing Address: 233 SW Wilson Ave, Suite 101, Bend, OR 97702

Telephone: 844-TRU-0200 Email: acoughlin@structint.com

Supports and Attachments Preapproval

☐ Supports and attachments are preapproved under OPM-
(Separate application for OSHPD Preapproval of Manufacturer's Certification (OPM) of Supports and attachments is required)

☒ Supports and attachments are not preapproved

Certification Method

☒ Testing in accordance with: ☒ ICC-ES AC156

☐ Other (Please Specify):

Testing Laboratory

Company Name: National Technical Systems – Huntsville (Formerly Wyle Laboratories)

Contact Name: Greg Mason

Mailing Address: 7800 Highway 20 West, Huntsville, AL 35806

Telephone: (256) 837-4411 Email: greg.mason@nts.com

Seismic Parameters

Design in accordance with ASCE 7-10 Chapter 13: ☒ Yes ☐ No

Design Basis of Equipment or Components (F_p/W_p) = 1.45 (z/h=1.0)

S_{DS} (Design spectral response acceleration at short period, g) = 2.02

a_p (In-structure equipment or component amplification factor) = 1.0

R_p (Equipment or component response modification factor) = 2.5

Ω_0 (System overstrength factor) = 2.0

I_p (Importance factor) = 1.5

z/h (Height factor ratio) = 1

Equipment or Component Natural Frequencies (Hz) = (See Attachment)

Overall dimensions and weight (or range thereof) = (See Attachment)

Equipment or Components @ grade designed in accordance with ASCE 7-10 Chapter 15: ☐ Yes ☒ No

Design Basis of Equipment or Components (V/W) =

S_{DS} (Design spectral response acceleration at short period, g) =

S_{D1} (Design spectral response acceleration at 1 second period, g) =

R (Response modification coefficient) =

Ω_0 (System overstrength factor) =

C_d (Deflection amplification factor) =

I_p (Importance factor) = 1.5

Height to Center of Gravity above base =

Equipment or Component Natural Frequencies (Hz) =

Overall dimensions and weight (or range thereof) =

Tank(s) designed in accordance with ASME BPVC, 2015: ☐ Yes ☒ No

List of Attachments Supporting Special Seismic Certification

☒ Test Report(s) ☐ Drawings ☐ Calculations ☐ Manufacturer's Catalog

☒ Other(s) (Please Specify): Product Matrices

OSHPD Approval (For Office Use Only) – Approval Expires on December 31, 2025

Signature: William Staehlin Date: July 14, 2021

Print Name: William Staehlin Title: Senior Structural Engineer

Special Seismic Certification Valid Up to : S_{DS} (g) = 2.02 z/h = 1

Condition of Approval (if applicable):

SPECIAL SEISMIC CERTIFICATION CERTIFIED COMPONENT MATRIX

1901338-CR-001 R0

Manufacturer: Schneider Electric IT Business
Model Line: Galaxy VM

TABLE 1

Certified Product Construction Summary:
Cold formed carbon steel indoor enclosures

Certified Options Summary:
Sections are certified for installation as indicated in notes.

Building Code: CBC 2019 ***Seismic Certification Limits:*** S_{DS}= ***2.02 g*** ***z/h=1.0*** I_P= ***1.5***

Mounting Configuration:
Base mounted - rigid
Note: Installed mounting configuration must be of similar configuration and equivalent strength and stiffness to those tested.

Model Line	Model	Dimensions (in)			Weight (lb)	Notes	UUT
		Depth	Width	Height			
Power Sections	160/180 kVA	33.6	23.6	77.6	1016	Ganged only	1
	200/225 kVA	33.6	23.6	77.6	1086	Ganged only	2
I/O Sections	130-225 kVA	33.6	15.7	77.6	460	Ganged only	3
	160-250 kVA	33.6	17.7	77.6	460	Ganged only	4
Transformer Cabinet	130-225 kVA, 480V:208V	33.6	31.5	77.6	2650	Standalone or Ganged	18
System Bypass Cabinet	375 kVA Load Bank Breaker	33.6	70.3	77.6	1430	Standalone or Ganged	6
Classical Battery Cabinet	Wide Cabinet	33.6	42.5	77.6	3500	Standalone or Ganged	10

Mounting Configuration Change

Mounting Configuration:
Base/Wall mounted - rigid
Note: Installed mounting configuration must be of similar configuration and equivalent strength and stiffness to those tested.

Model Line	Model	Dimensions (in)			Weight (lb)	Notes	UUT
		Depth	Width	Height			
Modular Battery Cabinets	Single Width	33.6	14.6	77.6	600	Ganged only	7b
	Double Width	33.6	27.6	77.6	3826	Standalone or Ganged	8b

SPECIAL SEISMIC CERTIFICATION CERTIFIED COMPONENT MATRIX

1901338-CR-001 R0

TABLE 2

Manufacturer: Schneider Electric IT Business
Model Line: Galaxy VM

Certified Product Construction Summary:
Cold formed carbon steel indoor enclosures

Certified Options Summary:

Building Code: CBC 2019 ***Seismic Certification Limits:*** S_{DS}= ***2.02 g*** ***z/h=1.0*** I_P= ***1.5***

Mounting Configuration:
Wall Mounted - Rigid
Note: Installed mounting configuration must be of similar configuration and equivalent strength and stiffness to those tested.

Model Line	Model	Dimensions (in)			Weight (lb)	Notes	UUT
		Depth	Width	Height			
Battery Breaker Box	600A	11.8	33.5	50.4	228		11
	630A	11.8	33.5	50.4	216		12

SPECIAL SEISMIC CERTIFICATION
CERTIFIED SUBCOMPONENT MATRIX

1901338-CR-001 R0

Manufacturer:	Schneider Electric IT Business	***Table Description:***	Internal Components	**TABLE 3**
Model Line:	Galaxy VM			

Building Code: CBC 2019 ***Seismic Certification Limits:*** S_{DS}= ***2.02 g z/h=1.0*** I_P = ***1.5***

Component Type	Manufacturer	Model	Description	Notes	UUT
Power Blocks	Schneider Electric	ON-9879	27 kVA		1
		ON-9831	40 kVA		2
		ON-10328	42 kVA	Mechanically Identical to 40kVA	Extrap.
Rectifier	Schneider Electric	ON-10019	160-225 kVA		1,2
Static Bypass Module	Schneider Electric	ON-1152	160-275 kVA		1,2
Contactors	Schneider Electric	LC1D65A6BD	TeSys 3-Pole Contactor, 80A		4
		LC1D115BD	TeSys 3-Pole Contactor, 200A		1,2
Choke	Schneider Electric	420-0283	Inductor Rod Core 10UH, 185A		1,2
Fans	Schneider Electric	ON-1254	Fan Assembly		1,2
Power Supply Unit	Schneider Electric	ON-1229	Power Cabinet PSU		1,2
Circuit Breakers	Square D	JGL37250D82	PowerPact 250A 500V 3 pole		Extrap.
		JDF36250	PowerPact 250A 600V 3 pole		7b
		LJF36250CU31X	PowerPact 250-250A 3 pole		Interp.
		LJF46250CU31X	PowerPact 250-250A 4 pole		Interp.
		LHL3640030DC	PowerPact 400A 600V 3 pole		Interp.
		LJF36400CU31X	PowerPact 400-400A 3 pole		Interp.
		LJF46400CU31X	PowerPact 400-400A 4 pole		4
		LJF46600U31X	PowerPact 600A 600V 3 pole		Interp.
		PJF36120CU31A	PowerPact 1200A 600V 3 pole		6
		RJF46120CU31A	PowerPact 1200A 600V 4 pole		6
	Schneider Electric	NSX630D CMPI	Compact NSX 630A		10
	Square D	MHF3660033DC	PowerPact 600A 600V 3 pole	Wall Mounted Applications	11
	Schneider Electric	LV438403	630A 500VDC NSX630FDC	Wall Mounted Applications	12

SPECIAL SEISMIC CERTIFICATION
CERTIFIED SUBCOMPONENT MATRIX

1901338-CR-001 R0

Manufacturer:	Schneider Electric IT Business	***Table Description:*** Internal Components	**TABLE 3**
Model Line:	Galaxy VM		

Building Code: CBC 2019 ***Seismic Certification Limits:*** S_{DS}= ***2.02 g z/h=1.0*** I_P = ***1.5***

Component Type	Manufacturer	Model	Description	Notes	UUT
Switches	Schneider Electric	31106	Interpact INS250A 3 pole		Extrap.
		31107	Interpact INS250A 4 pole		Extrap.
		31110	Interpact INS400A 3 pole		3
		31111	Interpact INS400A 4 pole		Interp.
		31112	Interpact INS500A 3 pole		Interp.
		31113	Interpact INS500A 4 pole		Interp.
		31114	Interpact INS630A 3 pole		Interp.
		31115	Interpact INS630A 4 pole		3
		31118	Interpact INSJ400-250A 3 pole		Interp.
		31119	Interpact INSJ400-250A 4 pole		Interp.
		31136	Interpact INSJ400-400A 3 pole		Interp.
		31137	Interpact INSJ400-400A 4 pole		4
		33476	Compact NS1000H 630A 4 pole		3
Fuses	Bussman	170M4659	High Speed Fuse 250A 690V/700V		Extrap.
		170M4661	High Speed Fuse 350A 690V/700V		Extrap.
		170M4663	High Speed Fuse 450A 690V/700V		8
		170M4666	High Speed Fuse 630A 690V/700V		10
		170M4668	High Speed Fuse 800A 690V/700V		8b
		170H3027	High Speed Fuse Indicator		8b
		BK/GBH-V030A6FR	High Speed Axial Fuse 30A 500V 20kA		7b
	Littelfuse	505030.MXEP	High Speed Axial Fuse 30A 500V 20kA		7b
	Bussman	170M4661	High Speed Fuse 350A 690V/700V	Wall Mounted Applications	Extrap.
		170M4663	High Speed Fuse 450A 690V/700V	Wall Mounted Applications	Extrap.

SPECIAL SEISMIC CERTIFICATION
CERTIFIED SUBCOMPONENT MATRIX

1901338-CR-001 R0

Manufacturer:	Schneider Electric IT Business	***Table Description:***	Internal Components	**TABLE 3**
Model Line:	Galaxy VM			

Building Code: CBC 2019 ***Seismic Certification Limits:*** S_{DS}= ***2.02 g*** ***z/h=1.0*** I_P = ***1.5***

Component Type	Manufacturer	Model	Description	Notes	UUT
Fuses	Bussman	170M4666	High Speed Fuse 630A 690V/700V	Wall Mounted Applications	11
		170M4668	High Speed Fuse 800A 690V/700V	Wall Mounted Applications	12
Transformer	Schneider Electric	432-0101	225 kVA 480V:208V 60Hz Isolation		18
Batteries - Modular	CSB	HRL 1234W F2FR	9 Ah		7b
	Enersys	NPX35/250FRWT	9 Ah		7b
	Japan Storage	PXL 12090	9 Ah		7b
	Panasonic	UP-PW1245P1	9 Ah		7b
Batteries - Lead Acid	Enersys	12HX135	28 Ah		Extrap.
		12HX205	44 Ah		Extrap.
		12HX300	70 Ah		10
		12HX400	94 Ah		10
	C&D	UPS-12-150MR	32 Ah		Extrap.
		UPS-12-210MR	55 Ah		Extrap.
		UPS-12-300MR	78.6 Ah		10
		UPS-12-400MR	103 Ah		10
	Exide	P12V875	40 Ah		Extrap.
		XP12V1800	56.4 Ah		Extrap.
		XP12V2500	69.5 Ah		10
		XP12V3000	92.8 Ah		10
	Rocket	ESU 12-210W	55 Ah		Extrap.
		ESU 12-300W	82 Ah		10
		ESU 12-350W	95 Ah		10
		ESU 12-400W	110 Ah		10

SPECIAL SEISMIC CERTIFICATION
CERTIFIED SUBCOMPONENT MATRIX

1901338-CR-001 R0

Manufacturer: Schneider Electric IT Business
Model Line: Galaxy VM

Table Description: Internal Components

TABLE 3

Building Code: CBC 2019

Seismic Certification Limits: S_{DS}= ***2.02 g*** ***z/h=1.0*** I_P = ***1.5***

Component Type	Manufacturer	Model	Description	Notes	UUT
Batteries - Lead Acid	Vision	6FM65X	74.75 Ah		10
		6FM80X	92 Ah		10
		6FM90T-X	103.5 Ah		10
		6FM100HX	115 Ah		10
	Yuasa	SWL2500	92.4 Ah		10

UNIT UNDER TEST (UUT) SUMMARY SHEET

1901338-CR-001 R0

Manufacturer: Schneider Electric IT Business

Model Line: Galaxy VM

UUT	Unit Description	Report Number	Testing Laboratory	S_{DS}	z/h	I_P
1	160/180 kVA Power Section	71235R14	Wyle Laboratories	2.02	1	1.5
2	200/225 kVA Power Section	71235R14	Wyle Laboratories	2.02	1	1.5
3	160-250 kVA I/O Section	71235R14	Wyle Laboratories	2.02	1	1.5
4	160-250 kVA I/O Section	71235R14	Wyle Laboratories	2.02	1	1.5
6	675A Load Bank Breaker System Bypass Cabinet	71542R14	Wyle Laboratories	2.02	1	1.5
7b	Modular Battery Cabinet - Single Width	71370R13 (UUT7b, Run 21)	Wyle Laboratories	2.02	1	1.5
8b	Modular Battery Cabinet - Double Width	71370R13 (UUT8b, Run 25)	Wyle Laboratories	2.02	1	1.5
10	Classical Battery Cabinet - Wide	71370R13	Wyle Laboratories	2.02	1	1.5
11	600A Battery Breaker Box	71370R13	Wyle Laboratories	2.16	1	1.5
12	630A Battery Breaker Box	71370R13	Wyle Laboratories	2.09	1	1.5
18	130-225 kVA, 480V:208V Transformer Cabinet	PR035625-TR-15	NTS Huntsville	2.03	1	1.5

Notes:

UNIT UNDER TEST (UUT) SUMMARY SHEET

1901338-CR-001 R0

UUT 1

Manufacturer: Schneider Electric IT Business
Model Line: Galaxy VM
Model Number: 160/180 kVA Power Section ***Serial Number:*** N/A

Product Construction Summary:
Cold formed carbon steel indoor enclosure

Options/Subcomponent Summary:
(6) 27 kVA Power Blocks, 160-225 kVA Rectifier, 160-275 kVA Static Bypass Module, TeSys 3-Pole Contactor (200A), Choke (Inductor Rod Core 10UH 185A), Fan Assembly, Power Supply

UUT Properties

Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
1016	33.6	23.6	77.6	12.0	6.7	25.0

UUT Highest Passed Seismic Run Information

Building Code	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)
CBC 2019	ICC-ES AC156 (2012)	2.02	1.0	1.5	3.23	2.43	1.35	0.55

Test Mounting Details:

UUT was mounted to the shake table interface frame using (5) type 8.8 M12 bolts.
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

1901338-CR-001 R0

UUT 2

Manufacturer: Schneider Electric IT Business
Model Line: Galaxy VM
Model Number: 200/225 kVA Power Section ***Serial Number:*** N/A

Product Construction Summary:
Cold formed carbon steel indoor enclosure

Options/Subcomponent Summary:
(6) 40 kVA Power Blocks, 160-225 kVA Rectifier, 160-275 kVA Static Bypass Module, TeSys 3-Pole Contactor (200A), Choke (Inductor Rod Core 10UH 185A), Fan Assembly, Power Supply

UUT Properties

Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
1086	33.6	23.6	77.6	13.0	6.8	26.0

UUT Highest Passed Seismic Run Information

Building Code	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)
CBC 2019	ICC-ES AC156 (2012)	2.02	1.0	1.5	3.23	2.43	1.35	0.55

Test Mounting Details:

UUT was mounted to the shake table interface frame using (5) type 8.8 M12 bolts.
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

1901338-CR-001 R0

UUT 3

Manufacturer: Schneider Electric IT Business
Model Line: Galaxy VM
Model Number: 160-250 kVA I/O Section ***Serial Number:*** N/A

Product Construction Summary:
Cold formed carbon steel indoor enclosure

Options/Subcomponent Summary:
Interpact INS400A 3-Pole Switch, Interpact INS400A 4-Pole Switch, Interpact INS6300A 4-Pole Switch

UUT Properties

Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
460	33.6	17.7	77.6	12.0	6.7	>33.3

UUT Highest Passed Seismic Run Information

Building Code	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)
CBC 2019	ICC-ES AC156 (2012)	2.02	1.0	1.5	3.23	2.43	1.35	0.55

Test Mounting Details:

UUT was mounted to the shake table interface frame using (4) type 8.8 M12 bolts.
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

1901338-CR-001 R0

UUT 4

Manufacturer: Schneider Electric IT Business
Model Line: Galaxy VM
Model Number: 160-250 kVA I/O Section ***Serial Number:*** N/A

Product Construction Summary:
Cold formed carbon steel indoor enclosure

Options/Subcomponent Summary:
PowerPact 400A 4-Pole Circuit Breaker, Interpact INSJ400A 3-Pole Switch, Interpact INSJ400A 4-Pole Switch

UUT Properties

Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
460	33.6	15.7	77.6	13.0	6.8	25.0

UUT Highest Passed Seismic Run Information

Building Code	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)
CBC 2019	ICC-ES AC156 (2012)	2.02	1.0	1.5	3.23	2.43	1.35	0.55

Test Mounting Details:

UUT was mounted to the shake table interface frame using (4) type 8.8 M12 bolts.
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

1901338-CR-001 R0

UUT 6

Manufacturer: Schneider Electric IT Business
Model Line: Galaxy VM
Model Number: 675A Load Bank Breaker System Bypass Cabinet ***Serial Number:*** N/A

Product Construction Summary:
Cold formed carbon steel indoor enclosure

Options/Subcomponent Summary:
Circuit Breakers: PowerPact 1200A (600V, 3-Pole), PowerPact 1200A (600V, 4-Pole)

UUT Properties

Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
1430	33.6	70.3	77.6	9.5	15.0	>33.3

UUT Highest Passed Seismic Run Information

Building Code	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)
CBC 2019	ICC-ES AC156 (2012)	2.02	1.0	1.5	3.23	2.43	1.35	0.55

Test Mounting Details:

UUT was mounted to the shake table interface frame using (9) type 8.8 M12 bolts.
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

1901338-CR-001 R0

UUT 7b

Manufacturer: Schneider Electric IT Business
Model Line: Galaxy VM
Model Number: Modular Battery Cabinet - Single Width ***Serial Number:*** N/A

Product Construction Summary:
Cold formed carbon steel indoor enclosure. Seismic Kit must be installed per manufacturer's instructions.

Options/Subcomponent Summary:
CSB 9Ah Battery, PowerPact Circuit Breaker (250A, 600V, 3-Pole)

UUT Properties

Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
600	33.6	14.6	77.6	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	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)
CBC 2019	ICC-ES AC156 (2012)	2.02	1.0	1.5	3.23	2.43	1.35	0.55

Test Mounting Details:

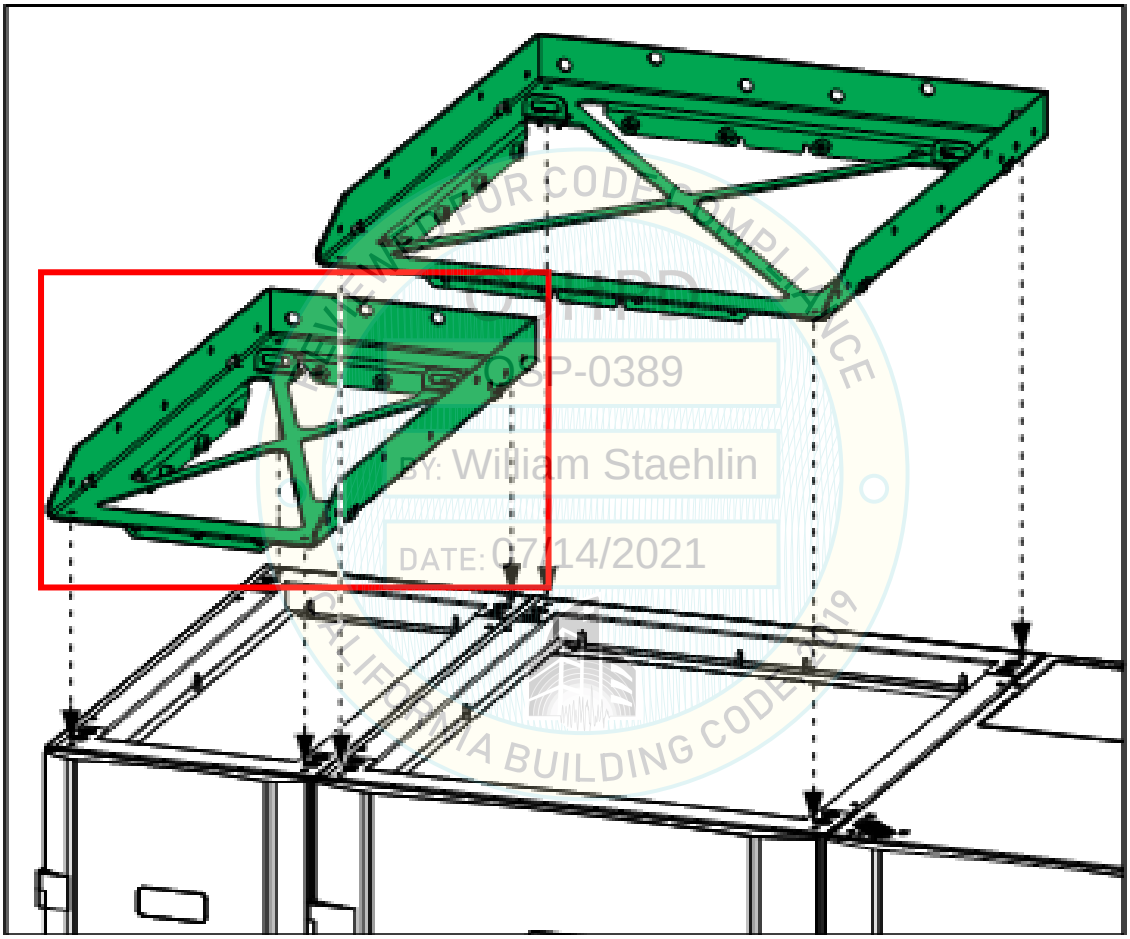
UUT was mounted to the shake table at the base using (4) type 8.8 M12 bolts, and at the top to the wall fixture using manufacturer provided seismic kit (GVML2MBCW-KIT) and (2) type 8.8 M12 bolts.
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

1901338-CR-001 R0

Manufacturer:	Schneider Electric IT Business	**UUT 7b**	
Model Line:	Galaxy VM		
Model Number:	Modular Battery Cabinet - Single Width	***Serial Number:***	N/A

Seismic Kit Installation (GVML2MBCW-KIT):



UNIT UNDER TEST (UUT) SUMMARY SHEET

1901338-CR-001 R0

UUT 8b

Manufacturer: Schneider Electric IT Business
Model Line: Galaxy VM
Model Number: Modular Battery Cabinet - Double Width ***Serial Number:*** N/A

Product Construction Summary:
Cold formed carbon steel indoor enclosure. Seismic Kit must be installed per manufacturer's instructions.

Options/Subcomponent Summary:
Batteries: CSB 9Ah, Enersys 9 Ah, Japan Storage 9Ah, Panasonic 9Ah **Circuit Breakers:** PowerPact (250A, 600V, 3-Pole) **Fuses:** High Speed Fuse (450A, 690V/700V), High Speed Fuse (800A, 690V/700V), High Speed Fuse Indicator **Pull Box:** Sidecar Pull Box (mounted to cabinet only)

UUT Properties

Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
3826	33.6	27.6	77.6	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	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)
CBC 2019	ICC-ES AC156 (2012)	2.02	1.0	1.5	3.23	2.43	1.35	0.55

Test Mounting Details:

UUT was mounted to the shake table at the base using (8) type 8.8 M12 bolts, and at the top to the wall fixture using manufacturer provided seismic kit (GVML2MBCW-KIT) and (2) type 8.8 M12 bolts.
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.
Contents were included in testing per operating conditions.

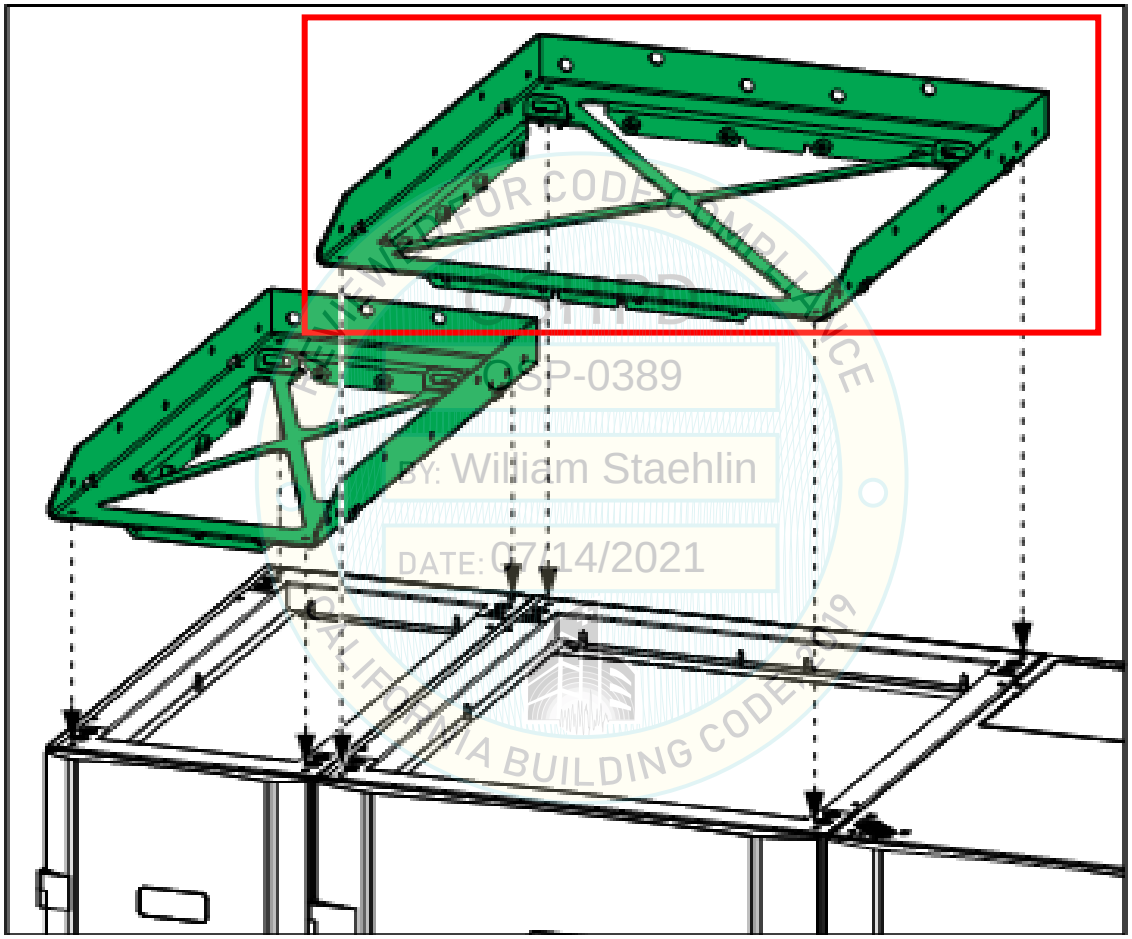
UNIT UNDER TEST (UUT) SUMMARY SHEET

1901338-CR-001 R0

UUT 8b

Manufacturer:	Schneider Electric IT Business		
Model Line:	Galaxy VM		
Model Number:	Modular Battery Cabinet - Double Width	***Serial Number:***	N/A

Seismic Kit Installation (GVML2MBCW-KIT):



UNIT UNDER TEST (UUT) SUMMARY SHEET

1901338-CR-001 R0

UUT 10

Manufacturer: Schneider Electric IT Business
Model Line: Galaxy VM
Model Number: Classical Battery Cabinet - Wide ***Serial Number:*** N/A

Product Construction Summary:
Cold formed carbon steel indoor enclosure

Options/Subcomponent Summary:
Batteries: Yuasa 92.4 Ah, Enersys 70 Ah, Enersys 94 Ah, C&D 78.6 Ah, C&D 103 Ah, Rocket 82 Ah, Rocket 95 Ah, Rocket 110 Ah, Exide 69.5 Ah, Exide 92.8 Ah, Vision 74.75 Ah, Vision 92 Ah, Vision 103.5 Ah, Vision 115 Ah **Circuit Breaker:** Compact NSX 630A **Fuse:** High Speed Fuse 630A 690V/700V

UUT Properties

Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
3500	33.6	42.5	77.6	7.3	9.3	>33.3

UUT Highest Passed Seismic Run Information

Building Code	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)
CBC 2019	ICC-ES AC156 (2012)	2.02	1.0	1.5	3.23	2.43	1.35	0.55

Test Mounting Details:

UUT was mounted to the shake table interface frame using (10) type 8.8 M12 bolts.
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

1901338-CR-001 R0

UUT 11

Manufacturer: Schneider Electric IT Business
Model Line: Galaxy VM
Model Number: 600A Battery Breaker Box ***Serial Number:*** N/A

Product Construction Summary:
Cold formed carbon steel indoor enclosure

Options/Subcomponent Summary:
High Speed Fuse (630A, 690V/700V), Circuit Breaker (600A, 600V, 3-Pole)

UUT Properties

Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
228	11.8	33.5	50.4	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	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)
CBC 2019	ICC-ES AC156 (2012)	2.16	1.0	1.5	3.46	2.59	1.44	0.58

Test Mounting Details:

UUT was mounted to the shake table wall fixture using (4) M8 screws.
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

1901338-CR-001 R0

UUT 12

Manufacturer: Schneider Electric IT Business
Model Line: Galaxy VM
Model Number: 630A Battery Breaker Box ***Serial Number:*** N/A

Product Construction Summary:
Cold formed carbon steel indoor enclosure

Options/Subcomponent Summary:
High Speed Fuse (800A, 690V/700V), Circuit Breaker (630A, 500VDC)

UUT Properties

Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
216	11.8	33.5	50.4	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	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)
CBC 2019	ICC-ES AC156 (2012)	2.09	1.0	1.5	3.34	2.51	1.39	0.56

Test Mounting Details:

UUT was mounted to the shake table wall fixture using (4) M8 screws.
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

1901338-CR-001 R0

UUT 18

Manufacturer: Schneider Electric IT Business
Model Line: Galaxy VM
Model Number: 130-225 kVA, 480V:208V Transformer Cabinet ***Serial Number:*** N/A

Product Construction Summary:
Cold formed carbon steel indoor enclosure

Options/Subcomponent Summary:
Transformer: 225 kVA 480V:208V 60Hz Isolation

UUT Properties

Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
2650	33.6	31.5	77.6	10.0	9.0	>33.3

UUT Highest Passed Seismic Run Information

Building Code	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)
CBC 2019	ICC-ES AC156 (2012)	2.03	1.0	1.5	3.24	2.44	1.36	0.55

Test Mounting Details:

UUT was mounted to the shake table interface frame using (13) type 8.8 M12 bolts.
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.
Contents were included in testing per operating conditions.