APPLICATION FOR OSHPD SPECIAL SEISMIC CERTIFICATION PREAPPROVAL (OSP)

OFFICE USE ONLY	
APPLICATION #:	OSP – 0155 – 10

OSHPD Special Seismic Certification Preapproval (OSP)

Type: ☐ New ☒ Renewal

Manufacturer Information

Manufacturer: Eaton Corporation

Manufacturer's Technical Representative: Virginia (Ginny) Snyder

Mailing Address: 8609 Six Forks Road, Raleigh, NC 27615

Telephone: (919) 870-3482 Email: VirginiaASnyder@eaton.com

Product Information

Product Name: 9130,9PX, and 9SX Uninterruptible Power Supplies and Accessories

Product Type: Uninterruptible Power Supplies

Product Model Number: See Attachment
(List all unique product identification numbers and/or part numbers)

General Description: Uninterruptible power supplies and accessories per UL 1778 and qualified for use in Emergency systems per UL 924. Power rating from 0.7-3kVA (9130), 5-8kVA (9P), 0.7-3kVA (9S) and voltage range from 120-240VAC.

Mounting Description: Rigid base mounted

Applicant Information

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

Contact Person: Galen Reid

Mailing Address: 5215 Hellyer Ave., Suite 210, San Jose, CA 95138

Telephone: 844-878-0200 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: 5/10/2019

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: Derrick Watkins California License Number: S5257

Mailing Address: 5215 Hellyer Ave., Suite 210, San Jose, CA 95138

Telephone: 844-878-0200 Email: dwatkins@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: UL LLC

Contact Name: Chris Rose, Senior Test Engineer

Mailing Address: 12 Laboratory Drive, RTP, NC 27709

Telephone: 919-549-1713 Email: Christopher.S.Rose@ul.com

Seismic Parameters

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

Design Basis of Equipment or Components (F_p/W_p) = 1.44 (S_{DS} = 2.00); 1.44 (S_{DS} = 3.20)

S_{DS} (Design spectral response acceleration at short period, g) = 2.00 (z/h = 1), 3.20 (z/h = 0)

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

I_p (Importance factor) = 1.5

z/h (Height factor ratio) = 1 (S_{DS} = 2.00), 0 (S_{DS} = 3.20)

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, 2022

Signature: Date: 10/24/2019

Print Name: Timothy J. Piland Title: SSE

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

Condition of Approval (if applicable):

SPECIAL SEISMIC CERTIFICATION
CERTIFIED COMPONENT MATRIX

TRU PROJECT NO. 1900087

Manufacturer: Eaton Corporation
Model Line: 9130/9PX/9SX

TABLE 1

Certified Product Construction Summary:
Powder coated carbon steel NEMA 1 enclosure.

Certified Options Summary:

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

Building Code: ***CBC 2016*** ***Seismic Certification Limits:*** S_{DS}= ***2.0 g*** ***z/h=1.0*** S_{DS}= ***3.2 g*** ***z/h=0.0*** I_P= ***1.5***

Model Line	Model	Dimensions (in)			Weight (lb)	Notes	UUT
		Depth	Width	Height			
9130 North American Tower	PW9130L700T	14.0	6.3	9.9	25.5		1
	PW9130L1000T-XL	15.0	6.3	9.9	31.8		2
	PW9130L1500T-XL	17.0	6.3	9.9	39.2		3
	PW9130L2000T-XL	16.1	8.4	12.8	76.1		Interp.
	PW9130L3000T-XL	16.1	8.4	12.8	81.0		18
9130 Global Tower	PW9130G2000T-XL	16.1	8.4	12.8	76.1		Interp.
	PW9130G2000T-XLEU	16.1	8.4	12.8	76.1		Interp.
	PW9130G3000T-XL	16.1	8.4	12.8	76.1		Interp.
	PW9130G3000T-XLEU	16.1	8.4	12.8	76.1		19
9PX 208/230/240V	9PX3000GLRT	23.8	3.4	17.3	63.5	UUT 27: Standalone	26, 27
	9PX5K	28.4	5.1	17.3	105.0		Interp.
	9PX6K	28.4	5.1	17.3	105.0		17
	9PX8K	32.0	10.2	17.3	193.2		4
	9PX11K	32.0	10.2	17.3	193.2	Identical to 9PX8K	Extrap.
9PX Extended Battery Modules	9PXEBM36RT	17.7	3.4	17.3	48.1		Extrap.
	9PXEBM48RT	17.7	3.4	17.3	59.1		Extrap.
	9PXEBM72RT	23.8	3.4	17.3	88.6		26
	9PXEBM180RT	25.4	5.1	17.3	146.0		20
9SX 120V	9SX700	13.9	6.3	9.9	26.3		21
	9SX1000	15.1	6.3	9.9	30.9		Interp.
	9SX1500	17.1	6.3	9.9	41.9		Interp.
	9SX2000	16.2	8.4	13.6	76.1		22
	9SX3000	16.2	8.4	13.6	77.2		Interp.

SPECIAL SEISMIC CERTIFICATION
CERTIFIED COMPONENT MATRIX

TRU PROJECT NO. 1900087

Manufacturer: Eaton Corporation
Model Line: 9130/9PX/9SX

TABLE 1

Certified Product Construction Summary:
Powder coated carbon steel NEMA 1 enclosure.

Certified Options Summary:

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

Building Code: ***CBC 2016*** ***Seismic Certification Limits:*** S_{DS}= ***2.0 g*** ***z/h=1.0*** S_{DS}= ***3.2 g*** ***z/h=0.0*** I_P= ***1.5***

Model Line	Model	Dimensions (in)			Weight (lb)	Notes	UUT
		Depth	Width	Height			
9SX 208V	9SX1000G	15.1	6.3	9.9	33.0		23
	9SX1500G	17.1	6.3	9.9	41.1		24
	9SX2000G	16.2	8.4	13.6	75.3		Interp.
	9SX3000G	16.2	8.4	13.6	75.3	C13 and C19 Outlet Receptacle	25
	9SX3000GL	16.2	8.4	13.6	75.3	L6-Outlet Receptacles	Extrap.

SPECIAL SEISMIC CERTIFICATION
CERTIFIED SUBCOMPONENT MATRIX

TRU PROJECT NO. 1900087

Manufacturer: Eaton Corporation
Model Line: 9130/9PX/9SX

TABLE 2

Building Code: ***CBC 2016*** ***Seismic Certification Limits:*** S_{DS} = 2.0 g z/h = 1.0; S_{DS} = 3.2 g z/h = 0.0 I_P = 1.5

Component Type	Manufacturer	Model	Description	Notes	UUT
Battery	B&B Battery	HR5.5-12	Lead acid, 12V, 5Ah, UL1989		17,20
	CSB	HR1234WF2	Lead acid, 12V, 9Ah, UL1989		1-4,18,19
	Leoch	DJW12-9.0	Lead acid, 12V, 9Ah, UL1989		21-27
Bypass Switch	Eaton Corporation	MBP11K208	208VAC, rear-mount maintenance bypass		4
Battery Enclosure	Eaton Corporation	9PXEBM240RT	240V, carbon steel, supports lead acid		4
Network Card	Eaton Corporation	Network-M2	PCB		25,27

UNIT UNDER TEST (UUT) SUMMARY SHEET

TRU PROJECT NO. 1900087

Manufacturer: Eaton Corporation
Model Line: 9130/9PX/9SX

UUT	Unit Description	Report Number	Testing Laboratory	S_{DS}	z/h	I_P
1	PW9130L700T-XL	R10964174	UL LLC	2.0 3.2	1.0 0.0	1.5
2	PW9130L1000T-XL	R10964174	UL LLC	2.0 3.2	1.0 0.0	1.5
3	PW9130L1500T-XL	R10964174	UL LLC	2.0 3.2	1.0 0.0	1.5
4	9PX8K Kit	R10964174	UL LLC	2.0 3.2	1.0 0.0	1.5
17	9PX6K	71152R13	Wyle Laboratories	3.2	1.0	1.5
18	PW9130L3000T-XL	71152R13	Wyle Laboratories	3.2	1.0	1.5
19	PW9130G3000T-XLEU	71152R13	Wyle Laboratories	3.2	1.0	1.5
20	9PXEBM180RT	71152R13	Wyle Laboratories	3.2	1.0	1.5
21	9SX700	R12717216 (UUT 1)	UL LLC	2.0 3.2	1.0 0.0	1.5
22	9SX2000	R12717216 (UUT 2)	UL LLC	2.0 3.2	1.0 0.0	1.5
23	9SX1000G	R12717216 (UUT 3)	UL LLC	2.0 3.2	1.0 0.0	1.5
24	9SX1500G	R12717216 (UUT 4)	UL LLC	2.0 3.2	1.0 0.0	1.5
25	9SX3000G w/ Network - M2	R12717216 (UUT 5 and UUT 9)	UL LLC	2.0 3.2	1.0 0.0	1.5
26	9PX3000GLRT & 9PXEBM72RT	R12717216 (UUT 6 and UUT 8)	UL LLC	2.0 3.2	1.0 0.0	1.5
27	9PX3000GLRT w/ Network - M2	R12717216 (UUT 7 and 10)	UL LLC	2.0 3.2	1.0 0.0	1.5

Notes:

UNIT UNDER TEST (UUT) SUMMARY SHEET

TRU PROJECT NO. 1900087

UUT 1

Manufacturer: Eaton Corporation
Model Line: 9130
Model Number: PW9130L700T-XL ***Serial Number:*** GJ163A0303

Product Construction Summary:
Powder coated carbon steel NEMA 1 enclosure.

Options/Subcomponent Summary:
Eaton SMKITA seismic mounting kit, CSB HR1234WF2 batteries.

UUT Properties

Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
25.5	14.0	6.3	9.9	>33.3	>33.3	>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 2016	ICC-ES AC156 (2015)	2.0	1.0	1.5	3.20	2.40	2.13	0.85
		3.2	0.0					

Test Mounting Details:

Rigid base mounted with Eaton Seismic Mounting Kit - SMKITA and (4) 1/2" Grade 8 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

TRU PROJECT NO. 1900087

UUT 2

Manufacturer: Eaton Corporation
Model Line: 9130
Model Number: PW9130L1000T-XL ***Serial Number:*** GJ195A0077

Product Construction Summary:
Powder coated carbon steel NEMA 1 enclosure.

Options/Subcomponent Summary:
Eaton SMKITA seismic mounting kit, CSB HR1234WF2 batteries.

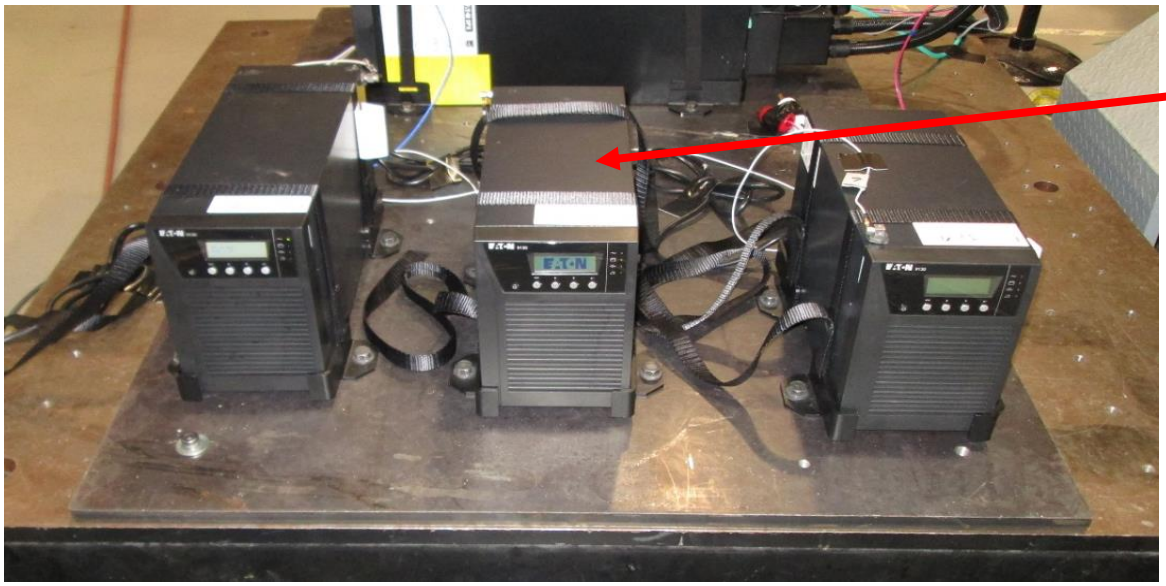
UUT Properties

Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
31.8	15.0	6.3	9.9	>33.3	>33.3	>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 2016	ICC-ES AC156 (2015)	2.0	1.0	1.5	3.20	2.40	2.13	0.85
		3.2	0.0					

Test Mounting Details:



Rigid base mounted with Eaton Seismic Mounting Kit - SMKITA and (4) 1/2" Grade 8 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

TRU PROJECT NO. 1900087

UUT 3

Manufacturer: Eaton Corporation
Model Line: 9130
Model Number: PW9130L1500T-XL ***Serial Number:*** GJ142A0171

Product Construction Summary:
Powder coated carbon steel NEMA 1 enclosure.

Options/Subcomponent Summary:
Eaton SMKITA seismic mounting kit, CSB HR1234WF2 batteries.

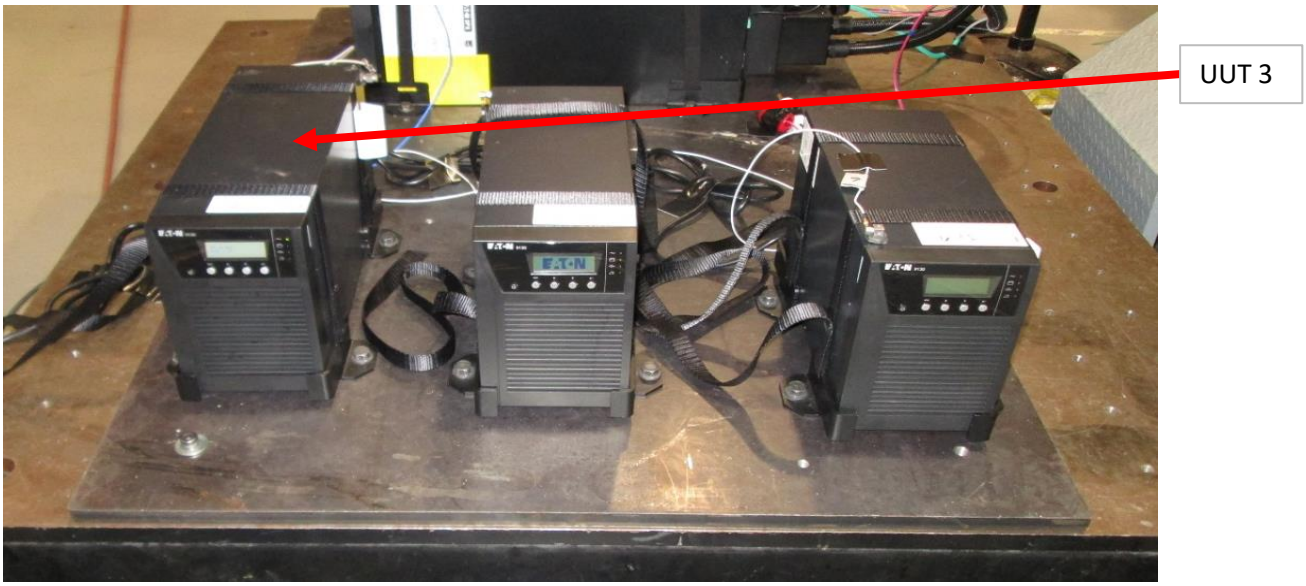
UUT Properties

Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
39.2	17.0	6.3	9.9	>33.3	>33.3	>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 2016	ICC-ES AC156 (2015)	2.0	1.0	1.5	3.20	2.40	2.13	0.85
		3.2	0.0					

Test Mounting Details:



Rigid base mounted with Eaton Seismic Mounting Kit - SMKITA and (4) 1/2" Grade 8 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

TRU PROJECT NO. 1900087

UUT 4

Manufacturer: Eaton Corporation
Model Line: 9PX
Model Number: 9PX8K ***Serial Number:*** G219F26048KIT

Product Construction Summary:
Powder coated carbon steel NEMA 1 enclosure.

Options/Subcomponent Summary:
Eaton SMKITA seismic mounting kit, Eaton 9PXEBM240RT extended battery module, Eaton MBP11K208 rear-mount maintenance bypass, CSB HR1234FW2 batteries.

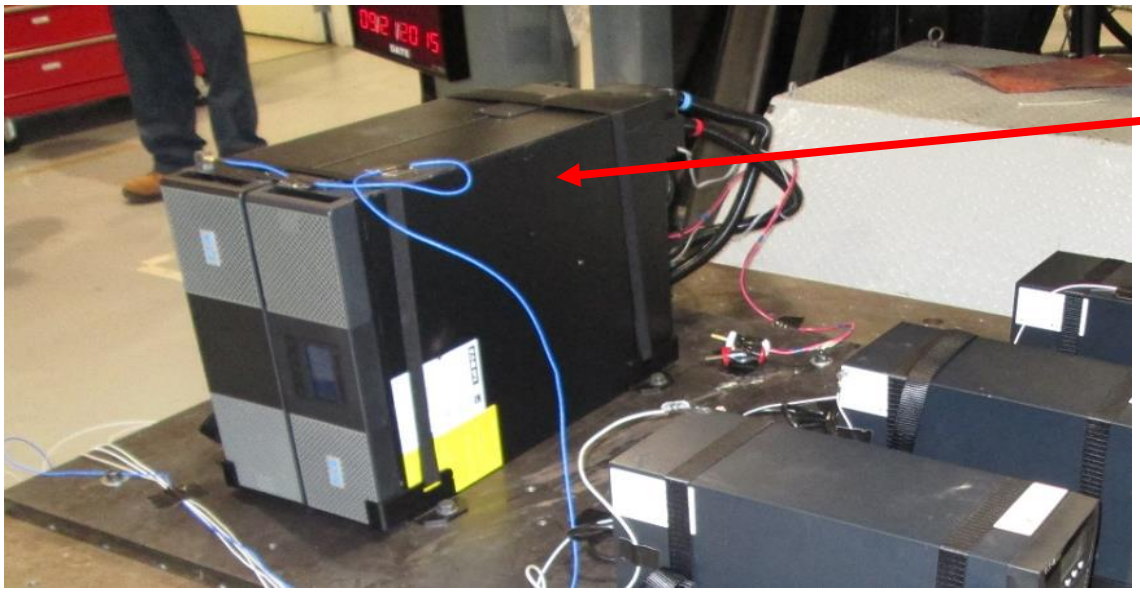
UUT Properties

Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
193.2	32.0	10.2	17.3	>33.3	16.53	>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 2016	ICC-ES AC156 (2015)	2.0	1.0	1.5	3.20	2.40	2.13	0.85
		3.2	0.0					

Test Mounting Details:



Rigid base mounted with Eaton Seismic Mounting Kit - SMKITA and (4) 1/2" Grade 8 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

TRU PROJECT NO. 1900087

UUT 17

Manufacturer: Eaton Corporation
Model Line: 9130/9PX
Model Number: 9PX6K ***Serial Number:*** G205D26018

Product Construction Summary:
Powder coated carbon steel NEMA 1 enclosure.

Options/Subcomponent Summary:
Eaton SMKITA Seismic mounting kit, B&B HR5.5-12 battery.

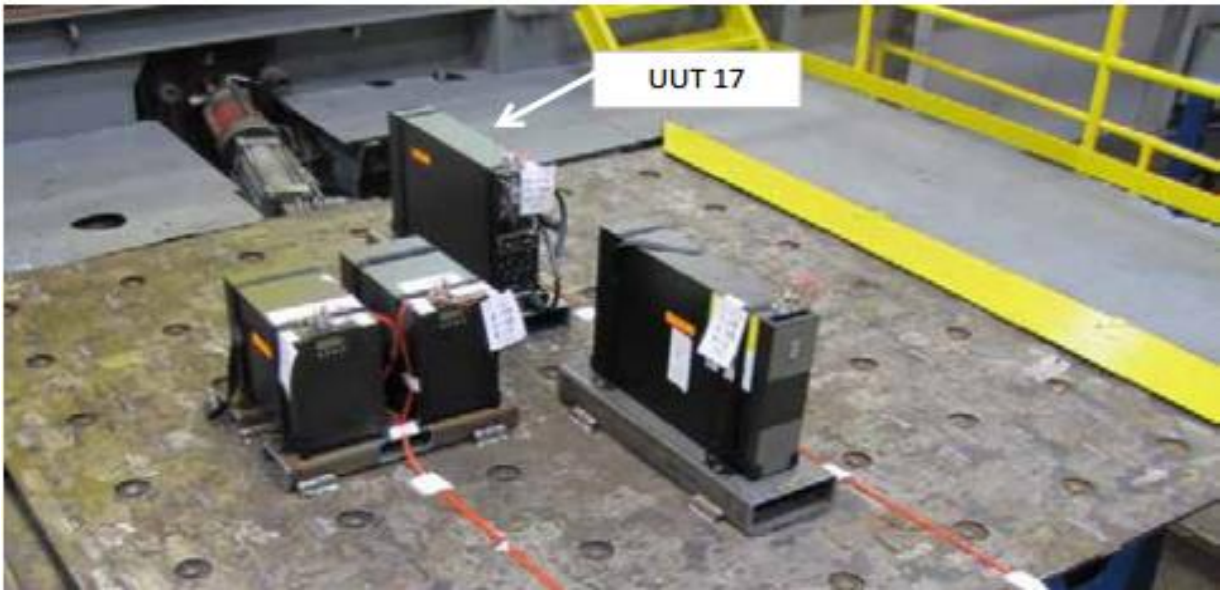
UUT Properties

Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
105	28.4	5.1	17.3	>33.3	11.0	>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 2016	ICC-ES AC156 (2015)	3.2	1.0	1.5	5.12	3.84	2.14	0.86

Test Mounting Details:



Rigid base mounted with Eaton Seismic Mounting Kit - SMKITA and (4) 1/2" Grade 8 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

TRU PROJECT NO. 1900087

UUT 18

Manufacturer: Eaton Corporation
Model Line: 9130/9PX
Model Number: PW9130L3000T-XL ***Serial Number:*** GE211A0398

Product Construction Summary:
Powder coated carbon steel NEMA 1 enclosure.

Options/Subcomponent Summary:
Eaton SMKITA Seismic mounting kit, CSB HR1234WF2 battery.

UUT Properties

Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
81.0	16.1	8.4	12.8	>33.3	>33.3	>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 2016	ICC-ES AC156 (2015)	3.2	1.0	1.5	5.12	3.84	2.14	0.86

Test Mounting Details:

Rigid base mounted with Eaton Seismic Mounting Kit - SMKITA and (4) 1/2" Grade 8 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

TRU PROJECT NO. 1900087

UUT 19

Manufacturer: Eaton Corporation
Model Line: 9130/9PX
Model Number: PW9130G3000T-XLEU ***Serial Number:*** N/A

Product Construction Summary:
Powder coated carbon steel NEMA 1 enclosure.

Options/Subcomponent Summary:
Eaton SMKITA seismic mounting kit, CSB HR1234WF2 battery.

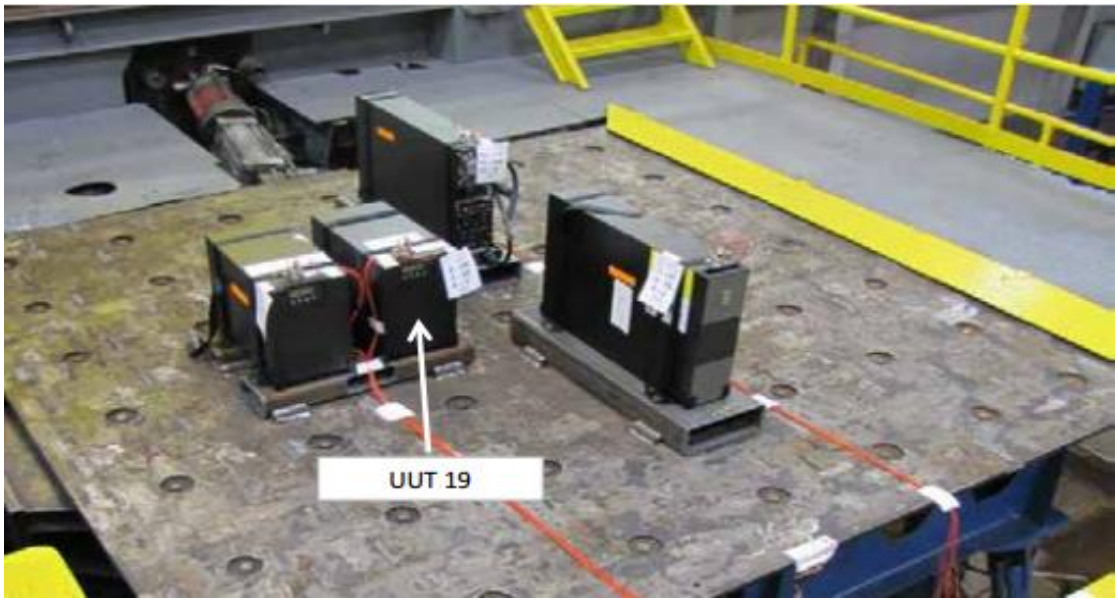
UUT Properties

Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
76.1	16.1	8.4	12.8	>33.3	>33.3	>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 2016	ICC-ES AC156 (2015)	3.2	1.0	1.5	5.12	3.84	2.14	0.86

Test Mounting Details:



Rigid base mounted with Eaton Seismic Mounting Kit - SMKITA and (4) 1/2" Grade 8 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

TRU PROJECT NO. 1900087

UUT 20

Manufacturer: Eaton Corporation
Model Line: 9130/9PX
Model Number: 9PXEBM180RT ***Serial Number:*** G216D24023

Product Construction Summary:
Powder coated carbon steel NEMA 1 enclosure.

Options/Subcomponent Summary:
Eaton SMKITA seismic mounting kit, B&B HR5.5-12 battery.

UUT Properties

Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
146.0	25.4	5.1	17.3	>33.3	10.0	>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 2016	ICC-ES AC156 (2015)	3.2	1.0	1.5	5.12	3.84	2.14	0.86

Test Mounting Details:

Rigid base mounted with Eaton Seismic Mounting Kit - SMKITA and (4) 1/2" Grade 8 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

TRU PROJECT NO. 1900087

UUT 21

Manufacturer: Eaton Corporation
Model Line: 9SX
Model Number: 9SX700 ***Serial Number:*** PC21J38557

Product Construction Summary:
Powder coated carbon steel NEMA 1 enclosure.

Options/Subcomponent Summary:
Eaton SMKITA seismic mounting kit, Input 5-15P, Output (6) 5-15R

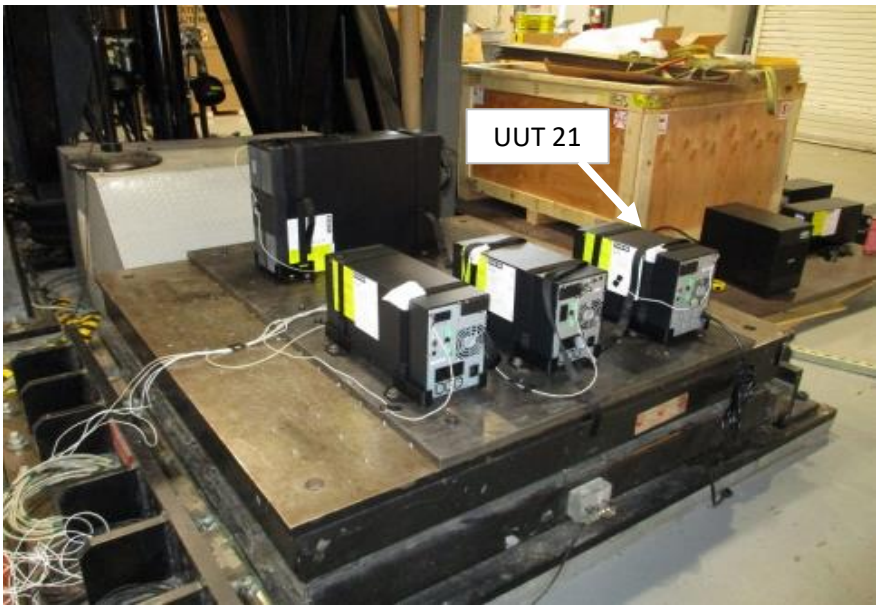
UUT Properties

Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
26.3	13.9	6.3	9.9	>33.3	>33.3	>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 2016	ICC-ES AC156 (2015)	2.0	1.0	1.5	3.20	2.40	2.13	0.85
		3.2	0.0					

Test Mounting Details:



Rigid base mounted with Eaton Seismic Mounting Kit - SMKITA and (4) 1/2" Grade 8 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

TRU PROJECT NO. 1900087

UUT 22

Manufacturer: Eaton Corporation
Model Line: 9SX
Model Number: 9SX2000 ***Serial Number:*** PC24J37235

Product Construction Summary:
Powder coated carbon steel NEMA 1 enclosure.

Options/Subcomponent Summary:
Eaton SMKITA seismic mounting kit, Input L5-20P, Output (6) 5-20R, (1) L5-20R

UUT Properties

Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
76.1	16.2	8.4	13.6	>33.3	>33.3	>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 2016	ICC-ES AC156 (2015)	2.0	1.0	1.5	3.20	2.40	2.13	0.85
		3.2	0.0					

Test Mounting Details:

Rigid base mounted with Eaton Seismic Mounting Kit - SMKITA and (4) 1/2" Grade 8 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

TRU PROJECT NO. 1900087

UUT 23

Manufacturer: Eaton Corporation
Model Line: 9SX
Model Number: 9SX1000G ***Serial Number:*** PC27J36110

Product Construction Summary:
Powder coated carbon steel NEMA 1 enclosure.

Options/Subcomponent Summary:
Eaton SMKITA seismic mounting kit, Input C14, Output (6) 5-15R

UUT Properties

Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
33	15.1	6.3	9.9	>33.3	>33.3	>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 2016	ICC-ES AC156 (2015)	2.0	1.0	1.5	3.20	2.40	2.13	0.85
		3.2	0.0					

Test Mounting Details:

Rigid base mounted with Eaton Seismic Mounting Kit - SMKITA and (4) 1/2" Grade 8 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

TRU PROJECT NO. 1900087

UUT 24

Manufacturer: Eaton Corporation
Model Line: 9SX
Model Number: 9SX1500G ***Serial Number:*** PC28J34057

Product Construction Summary:
Powder coated carbon steel NEMA 1 enclosure.

Options/Subcomponent Summary:
Eaton SMKITA seismic mounting kit, Input C14, Output (8) C13

UUT Properties

Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
41.1	17.1	6.3	9.9	>33.3	>33.3	>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 2016	ICC-ES AC156 (2015)	2.0	1.0	1.5	3.20	2.40	2.13	0.85
		3.2	0.0					

Test Mounting Details:

Rigid base mounted with Eaton Seismic Mounting Kit - SMKITA and (4) 1/2" Grade 8 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

TRU PROJECT NO. 1900087

UUT 25

Manufacturer: Eaton Corporation
Model Line: 9SX
Model Number: 9SX3000G ***Serial Number:*** PC30J35024

Product Construction Summary:
Powder coated carbon steel NEMA 1 enclosure.

Options/Subcomponent Summary:
Eaton SMKITA seismic mounting kit, Network-M2, Input C20, Output (8) C13 and (1) C19

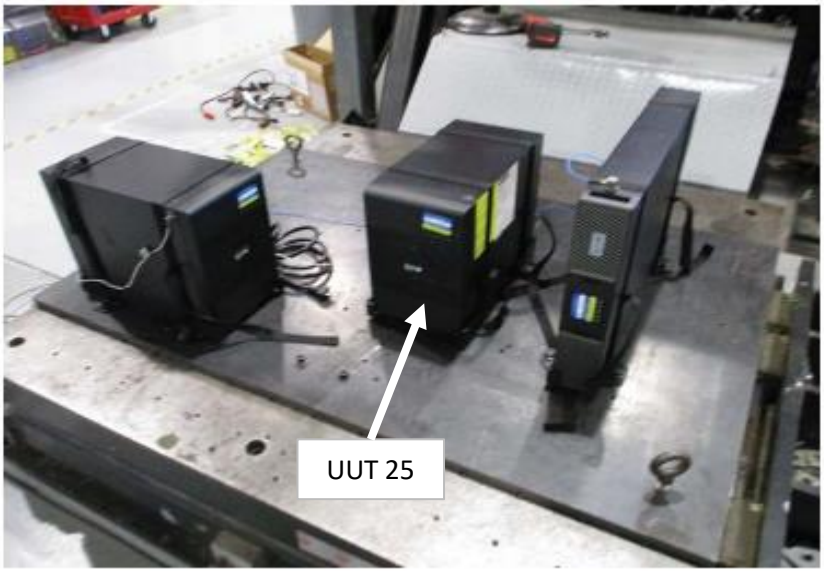
UUT Properties

Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
75.3	16.2	8.4	13.6	>33.3	>33.3	>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 2016	ICC-ES AC156 (2015)	2.0	1.0	1.5	3.20	2.40	2.13	0.85
		3.2	0.0					

Test Mounting Details:



Rigid base mounted with Eaton Seismic Mounting Kit - SMKITA and (4) 1/2" Grade 8 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

TRU PROJECT NO. 1900087

UUT 26

Manufacturer: Eaton Corporation
Model Line: 9130/9PX
Model Number: 9PX3000GLRT & 9PXEBM72RT ***Serial Number:*** GA25G49011 & GA32J39223

Product Construction Summary:
Powder coated carbon steel NEMA 1 enclosure (ganged units)

Options/Subcomponent Summary:
Eaton SMKITA seismic mounting kit

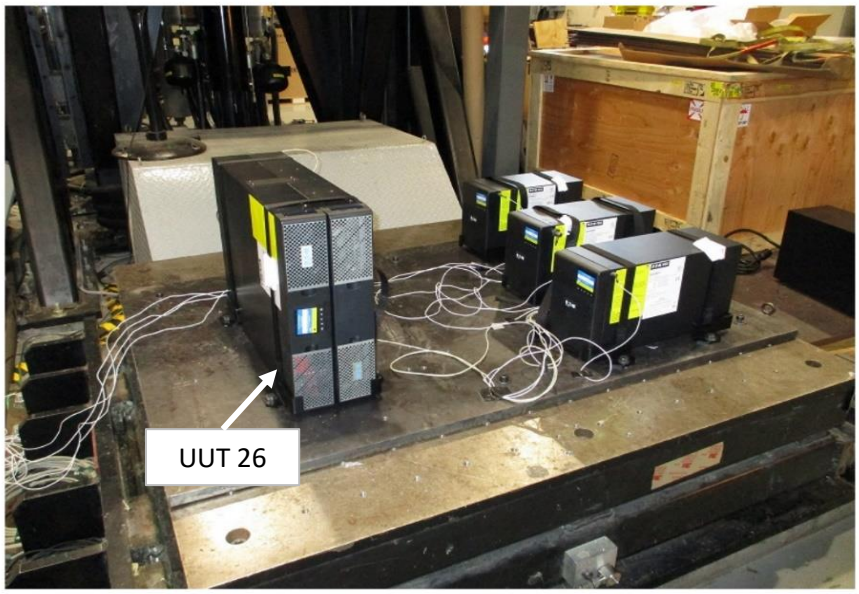
UUT Properties

Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
152.1	23.8	6.8	17.3	14.8	>33.3	28.85

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 2016	ICC-ES AC156 (2015)	2.0	1.0	1.5	3.20	2.40	2.13	0.85
		3.2	0.0					

Test Mounting Details:



Rigid base mounted with Eaton Seismic Mounting Kit - SMKITA and (4) 1/2" Grade 8 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

TRU PROJECT NO. 1900087

UUT 27

Manufacturer: Eaton Corporation
Model Line: 9130/9PX
Model Number: 9PX3000GLRT ***Serial Number:*** GA25G12002

Product Construction Summary:
Powder coated carbon steel NEMA 1 enclosure.

Options/Subcomponent Summary:
Eaton SMKITA seismic mounting kit, Network-M2

UUT Properties

Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
63.5	23.8	3.4	17.3	>33.3	17.0	>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 2016	ICC-ES AC156 (2015)	2.0	1.0	1.5	3.20	2.40	2.13	0.85
		3.2	0.0					

Test Mounting Details:

Rigid base mounted with Eaton Seismic Mounting Kit - SMKITA and (4) 1/2" Grade 8 bolts.
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.
Contents were included in testing per operating conditions.