APPLICATION FOR OSHPD SPECIAL SEISMIC CERTIFICATION PREAPPROVAL (OSP)

OFFICE USE ONLY	
APPLICATION #:	OSP – 0007

OSHPD Special Seismic Certification Preapproval (OSP)

Type: ☐ New ☒ Renewal

Manufacturer Information

Manufacturer: Square D by Schneider Electric

Manufacturer's Technical Representative: Scott Littler, Principal Technical Expert

Mailing Address: 330 Weakley Lane, Smyrna, TN 37167

Telephone: 615-459-1255 Email: scott.littler@se.com

Product Information

Product Name: Power-Zone 4 (PZ-4) Switchgear Systems

Product Type: Switchgear – Low Voltage Drawout (600 Volts and Below)

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

General Description: Low Voltage, Metal Enclosed, Drawout Switchgear
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

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: 541-604-7225 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: 11/19/2021

Title: Manager, TRU Compliance 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: Andrew M. Coughlin California License Number: D6082

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

Telephone: 844-878-0200 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: Structural and Earthquake Engineering and Simulation Laboratory (SEESL)

Contact Name: Mark Pitman

Mailing Address: 212 Ketter Hall, North Campus, Buffalo, NY 14260

Telephone: 716-645-4377 Email: mpitman@buffalo.edu

Company Name: NTS Huntsville

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) = 1.22 (S_{DS} = 1.63); 0.95 (S_{DS} = 2.11)

S_{DS} (Design spectral response acceleration at short period, g) = 1.63 (z/h = 1); 2.11 (z/h = 0)

a_p (In-structure equipment or component amplification factor) = 2.5

R_p (Equipment or component response modification factor) = 6.0

Ω_0 (System overstrength factor) = 2

I_p (Importance factor) = 1.5

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

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 November 19, 2027**

Signature: _____ Date: November 19, 2021

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

1800555-CR-001 R0

Manufacturer:	Square D by Schneider Electric
Model Line:	Power-Zone 4 (PZ-4) Switchgear Systems

TABLE 1

Certified Product Construction Summary:

NEMA Type 1 enclosures constructed of carbon steel with powder-coated finish.

Certified Options Summary:

Main and Tie, Feeder Distribution and Auxillary Switchgear with Masterpact Circuit Breakers 1600-6000A, main bus ampacity rating for copper bus only. Maximum 600 VAC. ANSI Type 2B Arc Resisting indoor rating

Mounting Configuration:

Base Mounted - Rigid (Standalone)

Note: Installed mounting configuration must be of similar configuration and equivalent strength and stiffness to those tested.

Building Code: CBC 2019 ***Seismic Certification Limits:*** S_{DS}= *1.63 g* *z/h=1.0* S_{DS}= *2.11 g* *z/h=0.0* I_P= *1.5*

Model Line	Model	Dimensions (in)			Weight (lb)	C.G. Height	Notes	UUT
		Depth	Width	Height				
Power - Zone 4 Low-Voltage Switchgear*	22W	54	22	91.5	2635	48.5		Extrap.
		60	22	91.5	2685	43.5	UUT1: 2515 lbs.	1,6
		72	22	91.5	2700	48.5		Interp.
		80	22	91.5	2750	48.5		Interp.
	30W	54	30	91.5	3100	48.5		Interp.
		60	30	91.5	3200	48.5		Interp.
		72	30	91.5	3300	48.5		Interp.
		80	30	91.5	3400	48.5		Interp.
	36W	54	36	91.5	3500	48.5		Interp.
		60	36	91.5	3600	48.5		Interp.
		72	36	91.5	3040	44.0		2
		72	36	91.5	3900	48.5		Interp.
		80	36	91.5	4185	48.5		8
	48W	54	48	91.5	3800	48.5		Interp.
		60	48	91.5	3850	48.5		Interp.
		72	48	91.5	3930	46.0		3
		80	48	91.5	4000	48.5		Extrap.

*Notes:

1. Section Types: Main and Tie, Feeder Distribution, and Auxiliary
2. Main bus ampacity rating for copper bus only.
3. Dimensions and weights are for individual sections. Section types may be installed alone or bayed together.
4. Optional roof exhaust plenum assembly adds 15" to section height and optional roof exhaust baffle adds 8" to section height
5. NEMA Enclosure Type 1 is constructed of carbon steel sheet with powder-coated finish.

SPECIAL SEISMIC CERTIFICATION CERTIFIED COMPONENT MATRIX

1800555-CR-001 R0

Manufacturer:	Square D by Schneider Electric	**TABLE 2**
Model Line:	Power-Zone 4 (PZ-4) Switchgear Systems	

Certified Product Construction Summary:

NEMA Type 1 enclosures constructed of carbon steel with powder-coated finish.

Certified Options Summary:

Main and Tie, Feeder Distribution and Auxillary Switchgear with Masterpact Circuit Breakers 1600-6000A, main bus ampacity rating for copper bus only. Maximum 600 VAC. ANSI Type 2B Arc Resisting indoor rating

Mounting Configuration:

Base Mounted - Rigid (Ganged)

Note: Installed mounting configuration must be of similar configuration and equivalent strength and stiffness to those tested.

Building Code: CBC 2019 ***Seismic Certification Limits:*** S_{DS}= ***1.63 g z/h=1.0*** S_{DS}= ***2.11 g z/h=0.0*** I_P= ***1.5***

Model Line	Model	Dimensions (in)			Weight (lb)	C.G. Height	Notes	UUT
		Depth	Width	Height				
Power - Zone 4 Low-Voltage Switchgear*	22W	54	22	91.5	2635	48.5		Extrap.
		60	22	91.5	2685	43.5	UUT7: 2515 lbs.	7
		72	22	91.5	2700	48.5		Interp.
		80	22	91.5	2750	48.5		Interp.
	30W	54	30	91.5	3100	48.5		Interp.
		60	30	91.5	3200	48.5		Interp.
		72	30	91.5	3300	48.5		Interp.
		80	30	91.5	2440	48.5		4
		80	30	91.5	3400	48.5		Interp.
	36W	54	36	91.5	3500	48.5		Interp.
		60	36	91.5	3600	48.5		Interp.
		72	36	91.5	3515	44.0		7
		72	36	91.5	3900	48.5		Interp.
		80	36	91.5	4185	48.5	UUT4: 3515 lbs.	4
	48W	54	48	91.5	3800	48.5		Extrap.
		60	48	91.5	3850	48.5		Extrap.
		72	48	91.5	3930	48.5		Extrap.
		80	48	91.5	3930	48.5		Extrap.

*Notes:

1. Section Types: Main and Tie, Feeder Distribution, and Auxiliary
2. Main bus ampacity rating for copper bus only.
3. Dimensions and weights are for individual sections. Section types must be installed in a bayed configuration.
4. Optional roof exhaust plenum assembly adds 15" to section height and optional roof exhaust baffle adds 8" to section height
5. NEMA Enclosure Type 1 is constructed of carbon steel sheet with powder-coated finish.

SPECIAL SEISMIC CERTIFICATION
CERTIFIED SUBCOMPONENT MATRIX

1800555-CR-001 R0

Manufacturer: Square D by Schneider Electric
Model Line: Power-Zone 4 (PZ-4) Switchgear Systems
Table Description: Circuit Breakers

TABLE 3

Building Code: CBC 2019
Seismic Certification Limits: S_{DS} = 1.63 g z/h = 1.0; S_{DS} = 2.11 g z/h = 0.0; I_P = 1.5

Component Type	Manufacturer	Model	Description	Configuration	Weight	UUT
MTZ1 Breakers	Schneider Electric	MTZ1 08	800A T-Frame	3 Pole	40 lbs.	Interp.
		MTZ1 12	1200A T-Frame		40 lbs.	4
		MTZ1 16	1600A T-Frame		40 lbs.	Interp.
T-Frame Breakers	Schneider Electric	NT08	800A T-Frame	3 Pole	40 lbs.	4
		NT12	1200A T-Frame		40 lbs.	Interp.
		NT16	1600A T-Frame		40 lbs.	Interp.
MTZ2 Breakers	Schneider Electric	MTZ2 08	800A MTZ2 Frame	3 Pole	109 lbs.	Interp.
		MTZ2 16	1600A MTZ2 Frame		109 lbs.	Interp.
		MTZ2 20	2000A MTZ2 Frame		109 lbs.	Interp.
		MTZ2 32	3200A MTZ2 Frame		127 lbs.	7
		MTZ2 40	4000A MTZ2 Frame		127 lbs.	Interp.
W-Frame Breakers	Schneider Electric	NW08	800A W-Frame	3 Pole	109 lbs.	1,6,7
		NW16	1600A W-Frame		109 lbs.	Interp.
		NW20	2000A W-Frame		109 lbs.	1,4,6
		NW32	3200A W-Frame		127 lbs.	7
		NW40	4000A W-Frame		127 lbs.	Interp.
MTZ2 Breakers	Schneider Electric	MTZ2 08	800A MTZ2 Frame	4 Pole	142 lbs.	Interp.
		MTZ2 16	1600A MTZ2 Frame		142 lbs.	Interp.
		MTZ2 20	2000A MTZ2 Frame		142 lbs.	Interp.
		MTZ2 32	3200A MTZ2 Frame		165 lbs.	Interp.
		MTZ2 40	4000A MTZ2 Frame		165 lbs.	Interp.

Notes: Breaker configurations include H, H1, H2, H3, HA, HB HC, HF, L, L1, L1F, LF, N, N1, NA, L, LF, and ArcBlok. Circuit Breakers, Automatic Switches and Non-Automatic Switches Rated 254-635 VAC; 50/60 Hz

SPECIAL SEISMIC CERTIFICATION
CERTIFIED SUBCOMPONENT MATRIX

1800555-CR-001 R0

Manufacturer:	Square D by Schneider Electric	***Table Description:*** Circuit Breakers	**TABLE 3**
Model Line:	Power-Zone 4 (PZ-4) Switchgear Systems		

Building Code: CBC 2019 ***Seismic Certification Limits:*** S_{DS} = 1.63 g z/h = 1.0; S_{DS} = 2.11 g z/h = 0.0 I_P = 1.5

Component Type	Manufacturer	Model	Description	Configuration	Weight	UUT
W-Frame Breakers	Schneider Electric	NW08	800A W-Frame	4 Pole	142 lbs.	Interp.
		NW16	1600A W-Frame		142 lbs.	Interp.
		NW20	2000A W-Frame		142 lbs.	10
		NW32	3200A W-Frame		165 lbs.	Interp.
		NW40	4000A W-Frame		165 lbs.	Interp.
MTZ3 Breakers	Schneider Electric	MTZ3 40	4000A MTZ3 Frame	6 Pole	227 lbs.	Interp.
		MTZ3 50	5000A MTZ3 Frame		227 lbs.	7,8
		MTZ3 60	6000A MTZ3 Frame		227 lbs.	Interp.
Y-Frame Breakers	Schneider Electric	NW40	4000A Y-Frame	6 Pole	227 lbs.	Interp.
		NW50	5000A Y-Frame		227 lbs.	2,4
		NW60	6000A Y-Frame		227 lbs.	Interp.
MTZ3 Breakers	Schneider Electric	MTZ3 40	4000A MTZ3 Frame	8 Pole	300 lbs.	Interp.
		MTZ3 50	5000A MTZ3 Frame		300 lbs.	Interp.
		MTZ3 60	6000A MTZ3 Frame		300 lbs.	Extrap.
Y-Frame Breakers	Schneider Electric	NW40	4000A Y-Frame	8 Pole	300 lbs.	Interp.
		NW50	5000A Y-Frame		300 lbs.	3
		NW60	6000A Y-Frame		300 lbs.	Extrap.

Notes: Breaker configurations include H, H1, H2, H3, HA, HB HC, HF, L, L1, L1F, LF, N, N1, NA, L, LF, and ArcBlok. Circuit Breakers, Automatic Switches and Non-Automatic Switches Rated 254-635 VAC; 50/60 Hz

SPECIAL SEISMIC CERTIFICATION
CERTIFIED SUBCOMPONENT MATRIX

1800555-CR-001 R0

Manufacturer:	Square D by Schneider Electric	***Table Description:***	Control Power Transformers	**TABLE 4**
Model Line:	Power-Zone 4 (PZ-4) Switchgear Systems			

Building Code: CBC 2019 ***Seismic Certification Limits:*** S_{DS} = 1.63 g z/h = 1.0 I_P = 1.5
S_{DS} = 2.11 g z/h = 0.0

Component Type	Manufacturer	Model	Description	Notes	UUT
Control Power Transformers	Square D	9070T500D1	0.5 kVA, Single Phase, Cu windings, 13 lbs.		Extrap.
		9070T1000D1	1 kVA, Single Phase, Cu windings, 22 lbs.		3,7
		9070T2000D1	2 kVA, Single Phase, Cu windings, 49 lbs.		Interp.
		9070T3000D1	3 kVA, Single Phase, Cu windings, 66 lbs.		2
		5S1HFOC	5 kVA, Single Phase, Al windings, 66 lbs.		4
		7S1HFOC	7.5 kVA, Single Phase, Al windings, 80 lbs.		2
		10S1HFOC	10 kVA, Single Phase, Al windings, 140 lbs.		3
		EE15S3HOC	15 kVA, Single Phase, Al windings, 140 lbs.		4,8,9

SPECIAL SEISMIC CERTIFICATION
CERTIFIED SUBCOMPONENT MATRIX

1800555-CR-001 R0

Manufacturer:	Square D by Schneider Electric	***Table Description:***	Accessories	**TABLE 5**
Model Line:	Power-Zone 4 (PZ-4) Switchgear Systems			

Building Code: CBC 2019 ***Seismic Certification Limits:*** S_{DS} = 1.63 g z/h = 1.0 I_P = 1.5
S_{DS} = 2.11 g z/h = 0.0

Component Type	Manufacturer	Model	Description	Notes	UUT
Traveling Lifter Assembly	Square D	80280-051-5X	Overhead traveling breaker lifter		2
Plenum Assembly	Square D	15"	roof exhaust plenum (adds 15" to height)		9
Baffle Assembly	Square D	8"	roof exhaust baffle (adds 8" to height)		6

UNIT UNDER TEST (UUT) SUMMARY SHEET

1800555-CR-001 R0

Manufacturer: Square D by Schneider Electric

Model Line: Power-Zone 4 (PZ-4) Switchgear Systems

UUT	Unit Description	Report Number	Testing Laboratory	S_{DS}	z/h	I_P
1	PZ4 - 4 High Feeder Section, 5kA	1900465-TR-001 R1	SEESL	1.65	1	1.5
				2.50	0	
2	PZ4 - Main Section, 5kA, 3P	1900465-TR-001 R1	SEESL	1.65	1	1.5
				2.50	0	
3	PZ4 - Main Section, 5kA, 4P	1900465-TR-001 R1	SEESL	1.65	1	1.5
				2.50	0	
4	PZ4 - Main & Feeder Lineup, 5kA	1900465-TR-001 R1	SEESL	1.63	1	1.5
				2.50	0	
6	Arc Resisting PZ4 - Feeder Section, 5kA	1900465-TR-001 R1	SEESL	1.63	1	1.5
				2.50	0	
7	Arc Resisting PZ4 - Main & Feeder Lineup, 5kA	1900465-TR-001 R1	SEESL	2.00	1	1.5
				2.50	0	
8	Arc Resisting PZ4 - Feeder Section, 5kA	1900465-TR-001 R1	SEESL	1.65	1	1.5
				2.50	0	
9	Arc Resisting PZ4 - Feeder Section, 5kA w/plenum	71052R13 (UUT2)	Wyle	2.11	1	1.5
				2.11	0	
10	QED-2 LV Switchboard, 2kA Draw-out ATS	PR077369-TR-18 (UUT1)	NTS Huntsville	1.65	1	1.5
				2.50	0	

Notes:

UNIT UNDER TEST (UUT) SUMMARY SHEET

1800555-CR-001 R0

UUT 1

Manufacturer:	Square D by Schneider Electric		
Model Line:	Power-Zone 4 (PZ-4) Switchgear Systems		
Model Number:	PZ4 - 4 High Feeder Section, 5kA	***Serial Number:***	41324718-001

Product Construction Summary:

Carbon steel enclosure with powder coated finish.

Options/Subcomponent Summary:

(2) Masterpact NW08H1, (2) Masterpact NW20H1

UUT Properties

Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
2515	60	22	91.5	9.1	5.8	25.1

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 (2018)	1.65	1.0	1.5	2.64	1.98	1.67	0.67
		2.5	0.0					

Test Mounting Details:

UUT was rigid base mounted using (6) 1/2"-13 Grade 5 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

1800555-CR-001 R0

UUT 2

Manufacturer:	Square D by Schneider Electric		
Model Line:	Power-Zone 4 (PZ-4) Switchgear Systems		
Model Number:	PZ4 - Main Section, 5kA, 3P	***Serial Number:***	41324718-002

Product Construction Summary:

Carbon steel enclosure with powder coated finish.

Options/Subcomponent Summary:

Masterpact NW50L1, 3kVA Control Power Transformer 9070T3000D1, 7.5kVA Control Power Transformer 7S1HFOC

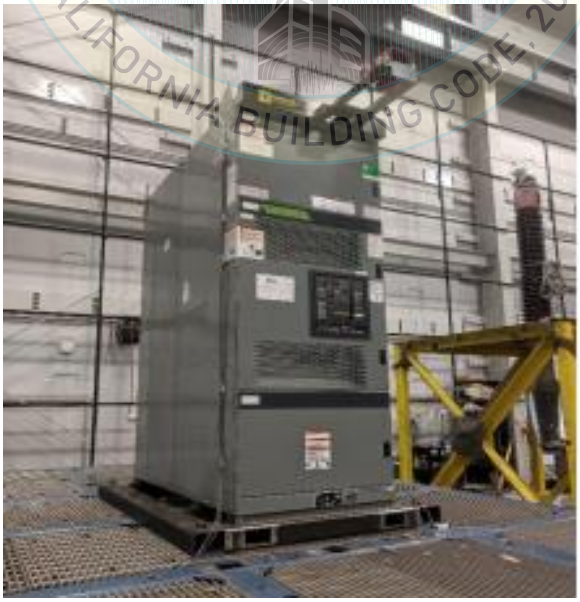
UUT Properties

Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
3040	72	36	91.5	10.4	5.8	32.1

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 (2018)	1.65	1.0	1.5	2.64	1.98	1.67	0.67
		2.5	0.0					

Test Mounting Details:



UUT was rigid base mounted using (6) 1/2"-13 Grade 5 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

1800555-CR-001 R0

UUT 3

Manufacturer: Square D by Schneider Electric
Model Line: Power-Zone 4 (PZ-4) Switchgear Systems
Model Number: PZ4 - Main Section, 5kA, 4P ***Serial Number:*** 41324718-003

Product Construction Summary:
Carbon steel enclosure with powder coated finish.

Options/Subcomponent Summary:
Masterpact NW50H2, 1kVA Control Power Transformer 9070T1000D1, 10kVA Control Power Transformer 10S1HFOC

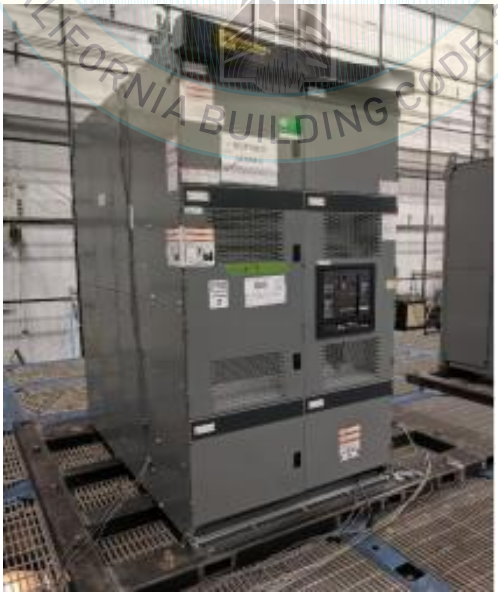
UUT Properties

Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
3930	72	48	91.5	11.9	4.7	25.2

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 (2018)	1.65	1.0	1.5	2.64	1.98	1.67	0.67
		2.5	0.0					

Test Mounting Details:



UUT was rigid base mounted using (6) 1/2"-13 Grade 5 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

1800555-CR-001 R0

UUT 4

Manufacturer:	Square D by Schneider Electric		
Model Line:	Power-Zone 4 (PZ-4) Switchgear Systems		
Model Number:	PZ4 - Main & Feeder Lineup, 5kA	***Serial Number:***	41324718-004

Product Construction Summary:

Carbon steel enclosure with powder coated finish.

Options/Subcomponent Summary:

Masterpact NW50L1, Masterpact NW20H1, Masterpact NT08N1, Masterpact MTZ1-12L1, 5kVA Control Power Transformer 9070T5000D1, 15kVA Control Power Transformer EE15S3HOC

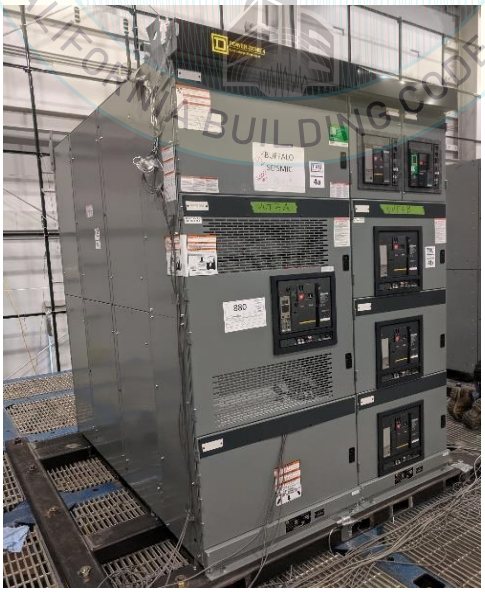
UUT Properties

Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
5955	80	66	91.5	9.3	6.4	27.1

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 (2018)	1.63	1.0	1.5	2.61	1.96	1.67	0.67
		2.5	0.0					

Test Mounting Details:



UUT was rigid base mounted using (12) 1/2"-13 Grade 5 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

1800555-CR-001 R0

UUT 6

Manufacturer:	Square D by Schneider Electric		
Model Line:	Power-Zone 4 (PZ-4) Switchgear Systems		
Model Number:	Arc Resisting PZ4 - Feeder Section, 5kA	***Serial Number:***	41324718-005

Product Construction Summary:

Carbon steel enclosure with powder coated finish.

Options/Subcomponent Summary:

(2) Masterpact NW08H1, (2) Masterpact NW20H1, Roof Baffle 80280-029-50

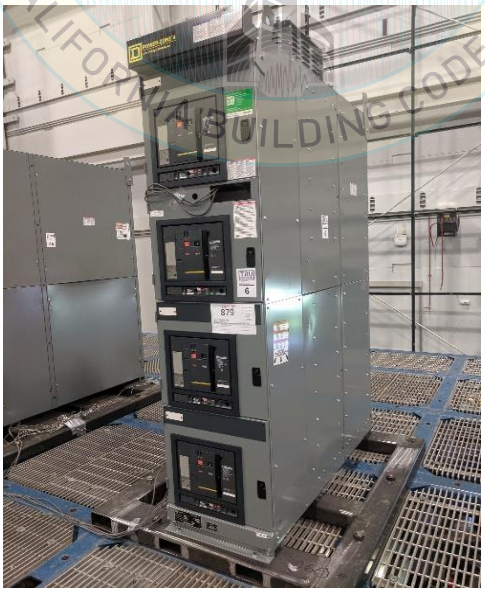
UUT Properties

Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
2685	60	22	91.5	7.1	2.3	20.8

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 (2018)	1.63	1.0	1.5	2.61	1.96	1.67	0.67
		2.5	0.0					

Test Mounting Details:



UUT was rigid base mounted using (4) 1/2"-13 Grade 5 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

1800555-CR-001 R0

UUT 7

Manufacturer: Square D by Schneider Electric
Model Line: Power-Zone 4 (PZ-4) Switchgear Systems
Model Number: Arc Resisting PZ4 - Main & Feeder Lineup, 5kA ***Serial Number:*** 32816854-001

Product Construction Summary:
Carbon steel enclosure with powder coated finish.

Options/Subcomponent Summary:
Masterpact MTZ3-50 H, Masterpact MTZ2-32 H3, (2) Masterpact NW32H1, Masterpact NW08H2, Masterpact NW08H1, 1kVA Control Power Transformer 9070T1000D1

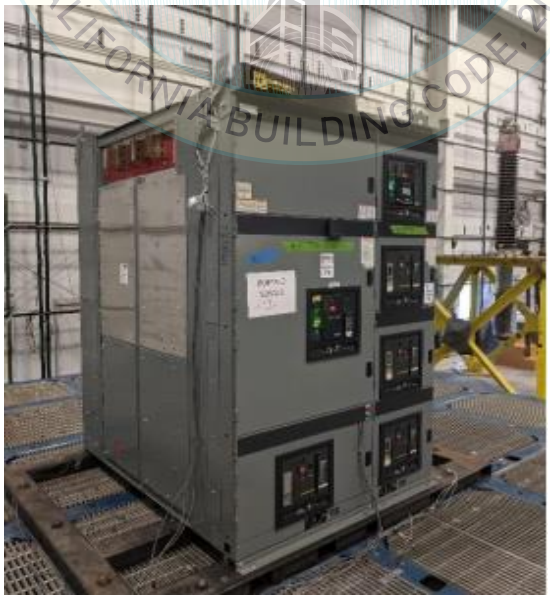
UUT Properties

Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
6023	72	58	91.5	8.5	4.0	20.4

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 (2018)	2.0	1.0	1.5	3.2	2.4	1.67	0.67
		2.5	0.0					

Test Mounting Details:



UUT was rigid base mounted using (8) 1/2"-13 Grade 5 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

1800555-CR-001 R0

UUT 8

Manufacturer:	Square D by Schneider Electric		
Model Line:	Power-Zone 4 (PZ-4) Switchgear Systems		
Model Number:	Arc Resisting PZ4 - Feeder Section, 5kA	***Serial Number:***	31232009-002

Product Construction Summary:

Carbon steel enclosure with powder coated finish.

Options/Subcomponent Summary:

Masterpact MTZ3-50H, 15kVA Control Power Transformer EE15S3HOC

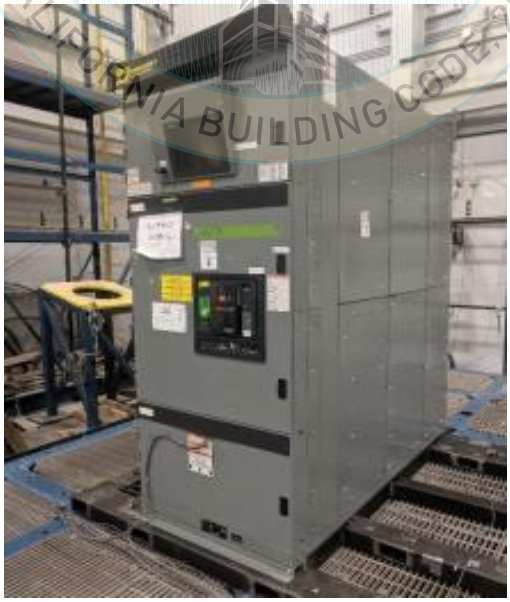
UUT Properties

Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
4185	80	36	91.5	9.9	4.1	26.6

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 (2018)	1.65	1.0	1.5	2.64	1.98	1.67	0.67
		2.5	0.0					

Test Mounting Details:



UUT was rigid base mounted using (4) 1/2"-13 Grade 5 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

1800555-CR-001 R0

UUT 9

Manufacturer: Square D by Schneider Electric
Model Line: Power-Zone 4 (PZ-4) Switchgear Systems
Model Number: Arc Resisting PZ4 - Feeder Section, 5kA w/plenum ***Serial Number:*** 31232009-002

Product Construction Summary:
Carbon steel enclosure with powder coated finish.

Options/Subcomponent Summary:
Roof exhaust plenum, Masterpact NW50H3

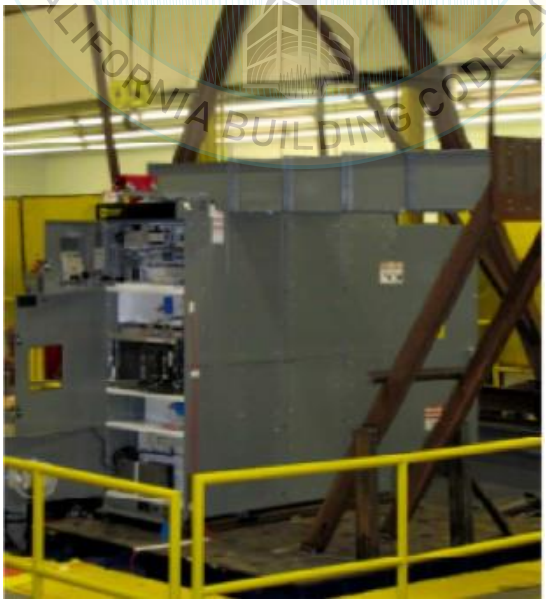
UUT Properties

Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
4125	80	36	91.5	11.2	7.5	>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 (2018)	2.11	1.0	1.5	3.38	2.53	1.41	0.57
		2.11	0.0					

Test Mounting Details:



UUT was rigid base mounted using (6) 1/2"-13 Grade 5 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

1800555-CR-001 R0

UUT 10

Manufacturer: Square D by Schneider Electric
Model Line: QED-2 Switchboard
Model Number: QED-2 LV Switchboard, 2kA Draw-out ATS ***Serial Number:*** 40663090-001

Product Construction Summary:
Carbon steel enclosure with powder coated finish.

Options/Subcomponent Summary:
(2) Masterpact NW20HF

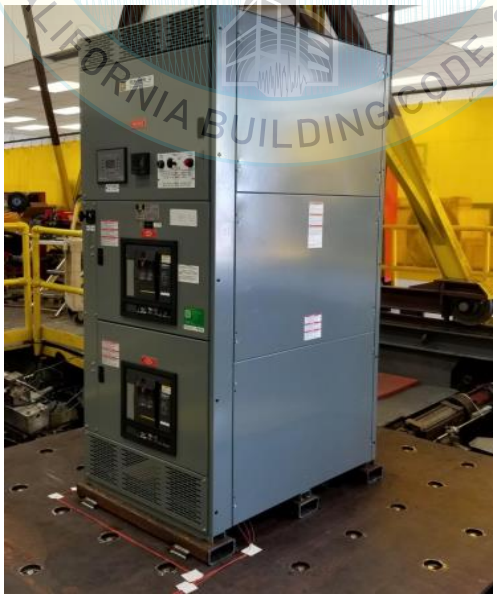
UUT Properties

Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
1723	48	36	91.5	9.0	4.2	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 (2018)	1.65	1.0	1.5	2.64	1.98	1.67	0.67
		2.5	0.0					

Test Mounting Details:



UUT was rigid base mounted using (6) 1/2"-13 Grade 5 bolts.
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.
Contents were included in testing per operating conditions.