



**DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION
FACILITIES DEVELOPMENT DIVISION**

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

OFFICE USE ONLY

APPLICATION #: OSP-0023

HCAI Special Seismic Certification Preapproval (OSP)

Type: New Renewal

Manufacturer Information

Manufacturer: Square D by Schneider Electric

Manufacturer's Technical Representative: Scott Littler

Mailing Address: 6700 Tower Circle, Suite 700, Franklin, TN 37067

Telephone: (615) 267-9407

Email: Scott.Littler@se.com

Product Information

Product Name: Transformers

Product Type: Transformers – Dry Type

Product Model Number: Transformer Model Styles A, B, C, D, E, H and DOE2016 EX and Mini Power-Zone Model MPZB (see Certified Product Listing tables)

General Description: Single phase and three phase dry type low voltage transformers in copper and aluminum windings packaged in sheet metal framed enclosures (NEMA Type 2 and 3R). Low voltage unit substations with single phase and three phase encapsulated transformers packaged with main and secondary circuit breakers in sheet metal framed enclosures (NEMA Type 3R).

Mounting Description: Rigid, Floor/Wall Mounted

Tested Seismic Enhancements: Seismic enhancements made to the test units and/or modifications required to address anomalies during the tests shall be incorporated into the production units.

Applicant Information

Applicant Company Name: Pre Compliance

Contact Person: Galen Reid

Mailing Address: 36 Southwest Wall Street, Bend, OR 97702-3425

Telephone: (541) 241-2310

Email: galen@go-pre.com

Title: Principal





**DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION
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California Licensed Structural Engineer Responsible for the Engineering and Test Report(s)

Company Name: PRE COMPLIANCE
Name: Andrew Coughlin California License Number: S6082
Mailing Address: 36 SW Wall Street, Bend, OR 97702
Telephone: (415) 635-8461 Email: Andy@go-pre.com

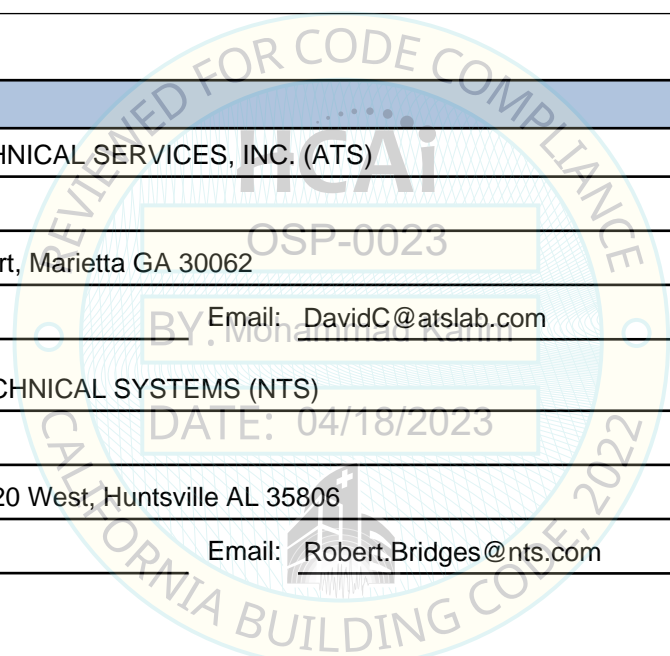
Certification Method

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

Testing Laboratory

Company Name: APPLIED TECHNICAL SERVICES, INC. (ATS)
Contact Person: David Common
Mailing Address: 1049 Triad Court, Marietta GA 30062
Telephone: (888) 287-5227 Email: DavidC@atslab.com

Company Name: NATIONAL TECHNICAL SYSTEMS (NTS)
Contact Person: Robert Bridges
Mailing Address: 7800 Highway 20 West, Huntsville AL 35806
Telephone: (256) 837-4411 Email: Robert.Bridges@nts.com





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Seismic Parameters

Design Basis of Equipment or Components (F_p/W_p) = 1.30 (z/h = 1); 0.96 (z/h = 0)

SDS (Design spectral response acceleration at short period, g) = 1.80 (z/h = 1); 2.13 (z/h = 0)

a_p (Amplification factor) = 1.0

R_p (Response modification factor) = 2.5

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

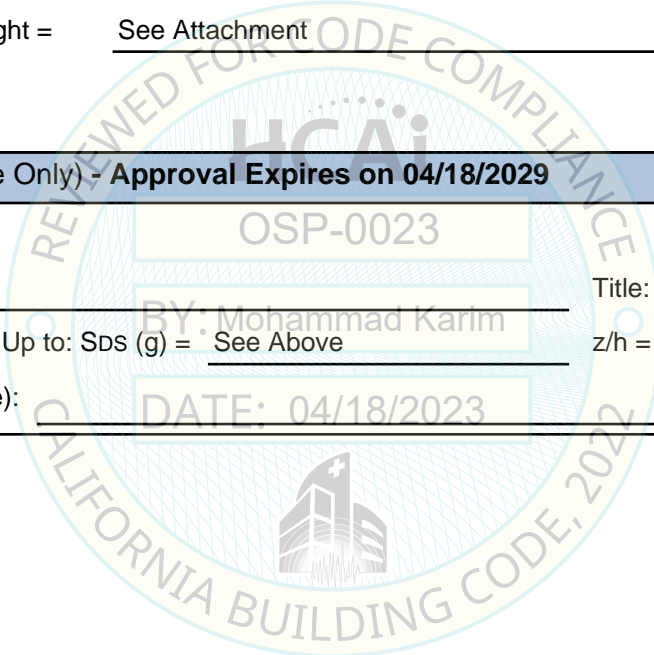
HCAI Approval (For Office Use Only) - Approval Expires on 04/18/2029

Date: 4/18/2023

Name: Mohammad Karim Title: Supervisor, Health Facilities

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

Condition of Approval (if applicable): DATE: 04/18/2023





SPECIAL SEISMIC CERTIFICATION CERTIFIED COMPONENTS

Pre No. 231003-01-R0

Manufacturer: Square D by Schneider Electric
Product Type: LV Dry-Type Transformers ($\leq 600V$)
Model Line: Styles D, H, and E

Seismic Parameters

$S_{DS} = 1.80 g$ for $z/h=1$
 $S_{DS} = 2.13 g$ for $z/h=0$ $I_p = 1.5$

Building Code

CBC 2022

TABLE 1

Mounting Configuration: Base Mounted - Rigid

Construction Summary

Carbon steel enclosures with powder coated finish.

Options Summary

Style D and H: NEMA 2 & 3R
 Style E: NEMA 3R

Model Line	Model (kVA)	Style Number	Max. Dimensions (in)			Wt. (lb)	Notes	UUT
			D	W	H			
Styles D & H, 1Ø (Al or Cu)	15	17D	16.0	20.0	27.0	340	Ventilated transformers in classes, EP (NEMA Premium), and HM (Harmonic Mitigating).	Interp.
	25	17H	16.0	20.0	37.0	380		Interp.
	37.5	18H	20.0	20.0	37.0	465		Interp.
	50	18H	20.0	20.0	37.0	430		Interp.
	75	21D	24.0	30.0	37.0	802		Interp.
	100	22D	27.0	32.0	43.8	1128		Interp.
	167	24D	28.5	35.0	49.5	1190		Interp.
Styles D & H, 3Ø (Al or Cu)	15	17D	16.0	20.0	27.0	320		Interp.
	30	17D	16.0	20.0	27.0	260		6
	30	17D	16.0	20.0	27.0	340		Interp.
	45	18D	20.0	20.0	30.0	430		Interp.
	75	20D	20.0	30.0	37.0	600		1
	112.5	21D	24.0	30.0	37.0	708		7
Styles D & H, 3Ø (Cu)	112.5	21D	24.0	30.0	37.0	802		2
	150	22D	27.0	32.0	43.8	1128		3
	225	24D	28.5	35.0	49.5	1190		Interp.
	300	25D	32.0	41.0	49.5	2600		Interp.
	300	30D	36.0	48.0	71.0	2600		4
	500	30D	36.0	48.0	71.0	2600		Interp.
Style E, 1Ø (Al or Cu)	750	31D	40.5	56.0	74.0	4012		5
	15	17E	16.0	20.0	27.0	340		Interp.
	25	18E	20.0	20.0	30.0	430	Interp.	
	37.5	18E	20.0	20.0	30.0	430	Interp.	
	50	21E	24.0	30.0	37.0	725	Interp.	
	75	24E	28.5	35.0	49.5	1190	Interp.	
Style E, 3Ø (Al or Cu)	100	25E	32.0	41.0	49.5	1570	Interp.	
	30	19E	20.0	30.0	30.0	620	Interp.	
	45	19E	20.0	30.0	30.0	620	Interp.	
	75	22E	27.0	32.0	43.8	985	Interp.	
Style E, 3Ø (Cu)	112.5	24E	28.5	35.0	49.5	1190	Interp.	
	150	25E	32.0	41.0	49.5	1570	Interp.	
	225	30E	36.0	48.0	71.0	2600	Interp.	
	300	31E	40.5	56.0	74.0	2600	Interp.	

Note: Style E is identical to Style D with the front and rear cover sheets extending to the top (i.e. no vents)

Manufacturer: Square D by Schneider Electric
Product Type: LV Dry-Type Transformers ($\leq 600V$)
Model Line: Styles A, B, C Resin Encapsulated

Seismic Parameters

$S_{DS} = 1.80 g$ for $z/h=1$ $I_p = 1.5$
 $S_{DS} = 2.13 g$ for $z/h=0$

Building Code

CBC 2022

TABLE 2

Mounting Configuration: Wall Mounted - Rigid

Construction Summary

Options Summary

Carbon steel enclosures with powder coated finish.

Model Line	Model (kVA)	Style Number	Max. Dimensions (in)			Wt. (lb)	Notes	UUT
			D	W	H			
Style A, 1Ø (Al or Cu)	0.05	1A	3.4	4.5	5.0	4.2	Resin filled encapsulated transformers	Interp.
	0.1	2A	3.4	4.5	5.5	4.5		Interp.
	0.15	3A	3.8	4.9	5.0	6.2		Interp.
	0.25	4A	4.1	5.2	5.5	10.5		Interp.
	0.5	5A	4.7	6.2	6.2	13.8		Interp.
	0.75	6A	4.7	6.2	6.7	15.5		Interp.
	1	7A	5.3	6.9	8.1	23		Interp.
	1.5	8A	6.6	8.7	8.3	30.1		Interp.
	2	9A	6.6	8.7	9.6	48		13
	3	10A	6.5	8.6	10.5	55.2		Interp.
	3	11A	6.5	8.6	14.5	60		10
Style B, 1Ø (Al or Cu)	5	13B	11.8	9.8	14.8	165	Interp.	
	7.5	13B	11.8	9.8	14.8	165	Interp.	
	10	13B	11.8	9.8	14.8	165	Interp.	
	15	15B	13.5	15.0	20.0	382	Interp.	
	25	15B	13.5	15.0	20.0	340	14	
	25	15B	13.5	15.0	20.0	382	11	
Style C, 3Ø (Al or Cu)	3	12C	9.0	14.8	13.5	145	Interp.	
	6	12C	9.0	14.8	13.5	145	Interp.	
	9	14C	12.3	19.1	14.8	310	Interp.	
	15	14C	12.3	19.1	14.8	310	Interp.	
Style C, 3Ø (Cu)	30	16C	13.5	25.0	22.0	664	12	

Manufacturer: Square D by Schneider Electric
Product Type: LV Dry-Type Transformers ($\leq 600V$)
Model Line: Mini Power-Zone LV Unit Substation

Seismic Parameters

$S_{DS} = 1.80 g$ for $z/h=1$ $I_p = 1.5$
 $S_{DS} = 2.13 g$ for $z/h=0$

Building Code

CBC 2022

TABLE 3

Mounting Configuration: Wall Mounted - Rigid

Construction Summary

NEMA 3R carbon steel enclosures with powder coated finish. Encapsulated (resin filled) core with copper coils.

Options Summary

NQ panelboard interior main and secondary circuit breakers.

Model Line	kVA	Model Number	Style #	Max. Dimensions (in)			Wt (lb)	Notes	UUT
				D	W	H			
MPZB, 1Ø	5	MPZB5S40F	AA	11.9	16	41	175		Interp.
		MPZB5S40F25K	AA	11.9	16	41	175		Interp.
		MPZB5S40F65K	AA	11.9	16	41	175		Interp.
	7.5	MPZB7S40F	AA	11.9	16	41	200		Interp.
		MPZB7S40F25K	AA	11.9	16	41	200		Interp.
		MPZB7S40F65K	AA	11.9	16	41	200		Interp.
	10	MPZB10S40F	AA	11.9	16	41	215		Interp.
		MPZB10S40F25K	AA	11.9	16	41	215		Interp.
		MPZB10S40F65K	AA	11.9	16	41	215		Interp.
	15	MPZB15S40F	BB	13.5	21.4	51	390		Interp.
		MPZB15S40F25K	BB	13.5	21.4	51	390		Interp.
		MPZB15S40F65K	BB	13.5	21.4	51	390		Interp.
25	MPZB25S40F	BB	13.5	21.4	51	470		15	
	MPZB25S40F25K	BB	13.5	21.4	51	470		Interp.	
	MPZB25S40F65K	BB	13.5	21.4	51	470		Interp.	
MPZB, 3Ø	15	MPZB15T2F	CC	13.6	27.4	48.6	510		Interp.
		MPZB15T2F25K	CC	13.6	27.4	48.6	510		Interp.
		MPZB15T2F65K	CC	13.6	27.4	48.6	510		Interp.
	22.5	MPZB22T2F	CC	13.6	27.4	48.6	670		Interp.
		MPZB22T2F25K	CC	13.6	27.4	48.6	670		Interp.
		MPZB22T2F65K	CC	13.6	27.4	48.6	670		Interp.
	30	MPZB30T2F	CC	13.6	27.4	48.6	750		16
		MPZB30T2F25K	CC	13.6	27.4	48.6	750		Interp.
		MPZB30T2F65K	CC	13.6	27.4	48.6	750		Interp.



SPECIAL SEISMIC CERTIFICATION CERTIFIED COMPONENTS

Pre No. 231003-01-R0

Manufacturer: Square D by Schneider Electric
Product Type: LV Dry-Type Transformers ($\leq 600V$)
Model Line: Energy Efficient Style DOE 2016 EX

Seismic Parameters
 $S_{DS} = 1.80 g$ for $z/h=1$ $I_p = 1.5$
 $S_{DS} = 2.13 g$ for $z/h=0$

Building Code
CBC 2022

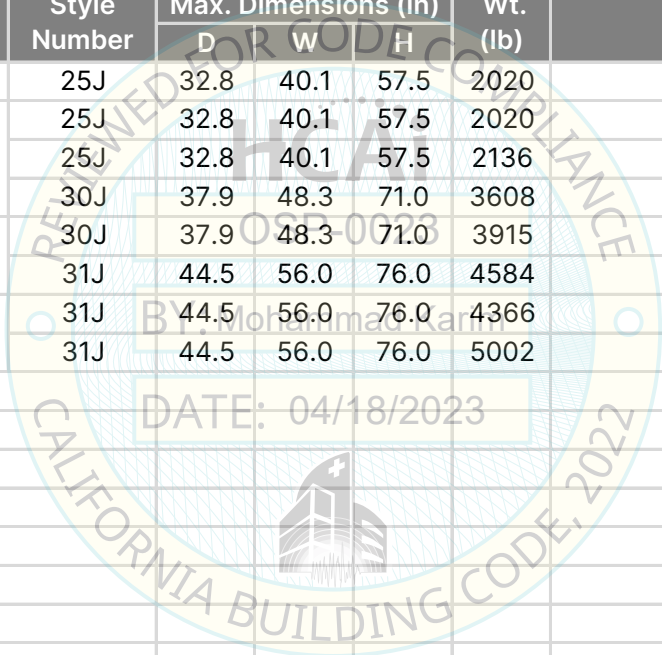
TABLE 4 Mounting Configuration: Base Mounted - Rigid

Construction Summary

NEMA 1, 2, or 3R carbon steel enclosures with powder coated finish.

Options Summary

Model Line	Model (kVA)	Style Number	Max. Dimensions (in)			Wt. (lb)	Notes	UUT
			D	W	H			
EX-DOE2016, 3Ø (Al or Cu)	225	25J	32.8	40.1	57.5	2020	Interp.	
	300	25J	32.8	40.1	57.5	2020	17	
		25J	32.8	40.1	57.5	2136	18	
	500	30J	37.9	48.3	71.0	3608	Interp.	
		30J	37.9	48.3	71.0	3915	Interp.	
	750	31J	44.5	56.0	76.0	4584	Interp.	
		31J	44.5	56.0	76.0	4366	19	
			31J	44.5	56.0	76.0	5002	20



Manufacturer: Square D by Schneider Electric
Product Type: LV Dry-Type Transformers ($\leq 600V$)
Model Line: Low Voltage Transformers

Seismic Parameters

$S_{DS} = 1.80g$ for $z/h=1$ $I_p = 1.5$
 $S_{DS} = 2.13g$ for $z/h=0$

Building Codes

CBC 2022

TABLE 5

Table Description: Breakers

Component (Manufacturer)	Model	Description	Notes	UUT
FA Frame Molded Case Circuit Breakers (Square D)	FAL24015	15A, 480V		Interp.
	FAL24020	20A, 480V		Interp.
	FAL24030	30A, 480V		Interp.
	FAL34040	40A, 480V		Interp.
	FAL24060	60A, 480V		Interp.
	FAL34070	70A, 480V		Interp.
	FAL34090	90A, 480V		16
	FAL24100	100A, 480V		15
PowerPact H Frame Molded Case Circuit Breakers (Square D)	HJL26015	15A, 600V		Interp.
	HJL26020	20A, 600V		Interp.
	HJL26030	30A, 600V		Interp.
	HJL34040	40A, 600V		Interp.
	HJL26060	60A, 600V		Interp.
	HJL34070	70A, 600V		Interp.
	HJL34090	90A, 600V		Interp.
	HJL26100	100A, 600V		Interp.
QO Frame Miniature Circuit Breakers (Square D)	QOB230	30A, 120V/240V, 2-pole		Interp.
	QOB240	40A, 120V/240V, 2-pole		Interp.
	QOB260	60A, 120V/240V, 2-pole		Interp.
	QOB360	60A, 240V, 3-pole		Interp.
	QOB280	80A, 120V/240V, 2-pole		Interp.
	QOB380	80A, 240V, 3-pole		Interp.
	QOB3100	100A, 240V, 3-pole		16
	QOB2125	125A, 120V/240V, 2-pole		15

UUT	Model	Test Report	Test Laboratory	¹ S _{DS}	z/h	I _p
1	EE75T3HCU	D198959-Rev 1 (UUT 3)	Applied Technical Services (ATS)	2.15 2.56	1 0	1.5
2	112T3HCU	50348-3 (UUT 5)	Wyle Laboratories	2.25 3.10	1 0	1.5
3	150T3HCU	50348-3 (UUT 4)	Wyle Laboratories	2.25 3.10	1 0	1.5
4	300T68HFISCUNLP	50348-2 (UUT 2)	Wyle Laboratories	2.37 3.07	1 0	1.5
5	750T68HCU	50348-1 (UUT 1)	Wyle Laboratories	2.11 3.37	1 0	1.5
6	EE30T3H	D191457-Rev 2 (UUT 17D)	Applied Technical Services (ATS)	1.80 2.40	1 0	1.5
7	EE112T212H	D191457-Rev 2 (UUT 21D)	Applied Technical Services (ATS)	1.94 2.32	1 0	1.5
8		NOT USED				
9		NOT USED				
10	3S46F	51551-5 (UUT 1)	Wyle Laboratories	2.39 2.88	1 0	1.5
11	25S40F	51551-5 (UUT 3)	Wyle Laboratories	2.39 2.88	1 0	1.5
12	30T2F	51551-5 (UUT 2)	Wyle Laboratories	2.39 2.88	1 0	1.5
13	2S1F	D191457-Rev 2 (UUT 9A)	Applied Technical Services (ATS)	1.92 2.72	1 0	1.5
14	25S3025F-AL	D193947-Rev 1 (UUT 15B)	Applied Technical Services (ATS)	1.94 2.74	1 0	1.5
15	MPZB25S40F	D198959-Rev 1 (UUT 7)	Applied Technical Services (ATS)	2.43 3.16	1 0	1.5
16	MPZB30T2F	D198959-Rev 1 (UUT 8)	Applied Technical Services (ATS)	2.25 2.98	1 0	1.5
17	EX300T3H	PR036473-TR-15 (UUT 5)	NTS Huntsville	2.31 2.31	1 0	1.5
18	EX300T3HCU	PR036473-TR-15 (UUT 6A)	NTS Huntsville	2.13 2.13	1 0	1.5
19	EX750T68H	PR036473-TR-15 (UUT 7A)	NTS Huntsville	2.13 2.13	1 0	1.5
20	EX750T68HCU	PR036473-TR-15 (UUT 8A)	NTS Huntsville	2.17 2.17	1 0	1.5

¹See addendum "PL231003-03" for back-calculated achieved SDS levels

UUT 1

Test Report# D198959-Rev 1 (UUT 3)

Manufacturer: Square D by Schneider Electric
Model Line: Low Voltage Transformers
Model Number: EE75T3HCU
Serial Number: N/A

Highest Passed Test Level						
S _{DS}	z/h	I _p	A _{flx-h}	A _{rig-h}	A _{flx-v}	A _{rig-v}
2.15	1		3.44	2.58	1.72	0.69
2.56	0	1.5				

Dimensions/Weights			
Depth (in)	Width (in)	Height (in)	Weight (lbs.)
20	30	37	600

Lowest Natural Frequency (Hz)		
Front-Back	Side-Side	Vertical
5.7	15.8	20.3

Building Code	Test Criteria	Construction/Option Summary
CBC 2022	ICC-ES AC156	Ventilated carbon steel enclosure. Copper windings.

UUT Mounting Details:	List of Included Subcomponents
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Description	Model #	Wt. (lbs.)
Core & Coil - 3 PH Copper	75 kVA	600
Enclosure - NEMA 2	20D	
Enclosure Base	43055-009-01	

UUT was rigid base mounted using (4) 7/16-14 Grade 5 bolts and flat washers.
 Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

UUT 2

Test Report# 50348-3 (UUT 5)

Manufacturer: Square D by Schneider Electric
Model Line: Low Voltage Transformers
Model Number: 112T3HCU
Serial Number: N/A

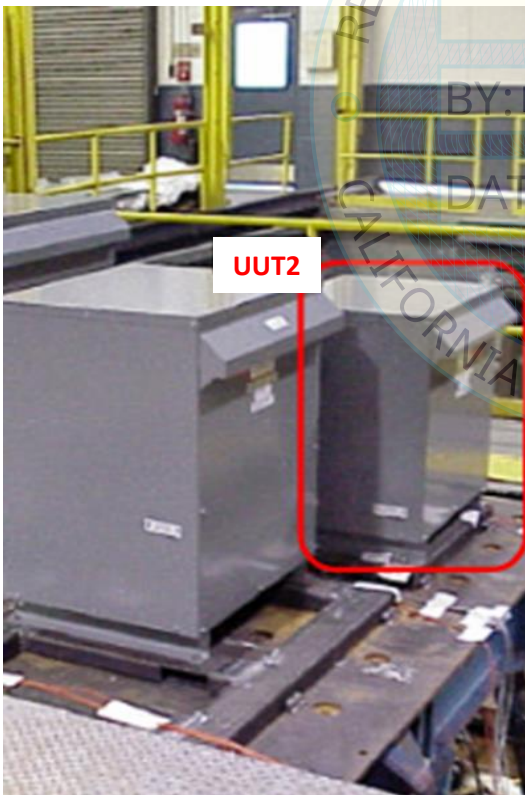
Highest Passed Test Level						
S _{DS}	z/h	I _p	A _{flx-h}	A _{rig-h}	A _{flx-v}	A _{rig-v}
2.25	1	1.5	3.60	2.70	2.08	0.84
3.10	0					

Dimensions/Weights			
Depth (in)	Width (in)	Height (in)	Weight (lbs.)
24	30	37	802

Lowest Natural Frequency (Hz)		
Front-Back	Side-Side	Vertical
13.0	12.0	16.0

Building Code	Test Criteria	Construction/Option Summary
CBC 2022	ICC-ES AC156	Ventilated carbon steel enclosure. Copper windings.

UUT Mounting Details:	List of Included Subcomponents
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Description	Model #	Wt. (lbs.)
Core & Coil - 3 PH Copper	112 kVA	802
Enclosure - NEMA 3R	21D	

UUT was rigid base mounted using (4) 1/2-13 Grade 5 bolts and flat washers. Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

UUT 3

Test Report# 50348-3 (UUT 4)

Manufacturer: Square D by Schneider Electric
Model Line: Low Voltage Transformers
Model Number: 150T3HCU
Serial Number: N/A

Highest Passed Test Level						
S _{DS}	z/h	I _p	A _{flx-h}	A _{rig-h}	A _{flx-v}	A _{rig-v}
2.25	1	1.5	3.60	2.70	2.08	0.84
3.10	0					

Dimensions/Weights			
Depth (in)	Width (in)	Height (in)	Weight (lbs.)
27	32	44	1128

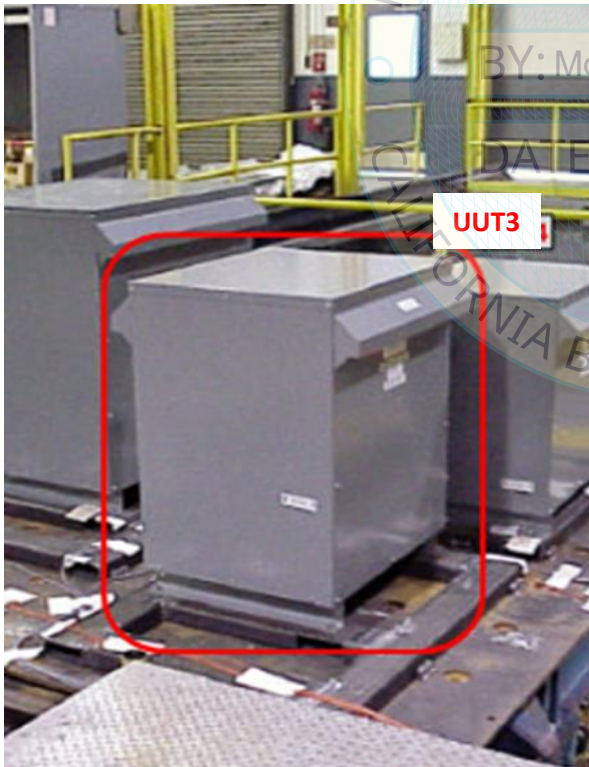
Lowest Natural Frequency (Hz)		
Front-Back	Side-Side	Vertical
11.0	12.5	12.0

Building Code
CBC 2022

Test Criteria
ICC-ES AC156

Construction/Option Summary
Ventilated carbon steel enclosure. Copper windings.

UUT Mounting Details:



UUT was rigid base mounted using (4) 1/2-13 Grade 5 bolts and flat washers. Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

List of Included Subcomponents

Description	Model #	Wt. (lbs.)
Core & Coil - 3 PH Copper	150 kVA	1128
Enclosure - NEMA 3R	22D	

UUT 4

Test Report# 50348-2 (UUT 2)

Manufacturer: Square D by Schneider Electric
Model Line: Low Voltage Transformers
Model Number: 300T68HFISCUNLP
Serial Number: N/A

Highest Passed Test Level

S _{DS}	z/h	I _p	A _{flx-h}	A _{rig-h}	A _{flx-v}	A _{rig-v}
2.37	1		3.79	2.84	2.06	0.83
3.07	0	1.5				

Dimensions/Weights

Depth (in)	Width (in)	Height (in)	Weight (lbs.)
36	48	71	2600

Lowest Natural Frequency (Hz)

Front-Back	Side-Side	Vertical
5.6	6.6	21.4

Building Code

CBC 2022

Test Criteria

ICC-ES AC156

Construction/Option Summary

Ventilated carbon steel enclosure. Copper windings.

UUT Mounting Details:



List of Included Subcomponents

Description	Model #	Wt. (lbs.)
Core & Coil - 3 PH Copper	300 kVA	2600
Enclosure - NEMA 3R	30D	

UUT was rigid base mounted using (4) 1/2-13 Grade 5 bolts and flat washers. Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

UUT 6

Test Report# D191457-Rev 1 (UUT 17D)

Manufacturer: Square D by Schneider Electric
Model Line: Low Voltage Transformers
Model Number: EE30T3H
Serial Number: N/A

Highest Passed Test Level						
S _{DS}	z/h	I _p	A _{flx-h}	A _{rig-h}	A _{flx-v}	A _{rig-v}
1.80	1		2.88	1.21	1.61	0.65
2.40	0	1.5				

Dimensions/Weights			
Depth (in)	Width (in)	Height (in)	Weight (lbs.)
16	20	27	260

Lowest Natural Frequency (Hz)		
Front-Back	Side-Side	Vertical
10.9	25.0	>33.3

Building Code
CBC 2022

Test Criteria
ICC-ES AC156

Construction/Option Summary
Ventilated carbon steel enclosure. Aluminum windings.

UUT Mounting Details:

List of Included Subcomponents



Description		Model #	Wt. (lbs.)
BY: Mohammad	Core & Coil - 3 PH Al	30 kVA	260
DATE: 04/18/2023	Enclosure - NEMA 2	17D	

UUT was rigid base mounted using (4) 7/16-14 Grade 5 bolts and flat washers. Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

UUT 7

Test Report# D191457-Rev 1 (UUT 21D)

Manufacturer: Square D by Schneider Electric
Model Line: Low Voltage Transformers
Model Number: EE112T212H
Serial Number: N/A

Highest Passed Test Level						
S _{DS}	z/h	I _p	A _{flx-h}	A _{rig-h}	A _{flx-v}	A _{rig-v}
1.94	1	1.5	3.10	2.33	1.55	0.63
2.32	0					

Dimensions/Weights			
Depth (in)	Width (in)	Height (in)	Weight (lbs.)
24	30	37	708

Lowest Natural Frequency (Hz)		
Front-Back	Side-Side	Vertical
11.2	15.7	>33.3

Building Code	Test Criteria	Construction/Option Summary
CBC 2022	ICC-ES AC156	Ventilated carbon steel enclosure. Aluminum windings.

UUT Mounting Details:	List of Included Subcomponents
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UUT was rigid base mounted using (4) 7/16-14 Grade 5 bolts and flat washers. Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

List of Included Subcomponents		Model #	Wt. (lbs.)
Description			
OSP-0023			
BY: Mohammad I	Core & Coil - 3 PH AI	112.5 kVA	708
DATE: 04/18/2023	Enclosure - NEMA 2	21D	

Pre No. 231003-01-R0

UUT 10

Test Report# 51551-5 (UUT 1)

Manufacturer: Square D by Schneider Electric
Model Line: Low Voltage Transformers
Model Number: 3S46F
Serial Number: N/A

Highest Passed Test Level						
S _{DS}	z/h	I _p	A _{flx-h}	A _{rig-h}	A _{flx-v}	A _{rig-v}
2.39	1	1.5	3.82	2.87	1.93	0.78
2.88	0					

Dimensions/Weights			
Depth (in)	Width (in)	Height (in)	Weight (lbs.)
6.5	8.6	14.5	60

Lowest Natural Frequency (Hz)		
Front-Back	Side-Side	Vertical
N/A	N/A	N/A

Building Code	Test Criteria	Construction/Option Summary
CBC 2022	ICC-ES AC156	Sealed resin filled carbon steel enclosure. Copper windings.

UUT Mounting Details:	List of Included Subcomponents
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Description	Model #	Wt. (lbs.)
Core & Coil - 1 PH Cu	3 kVA	60
Enclosure - NEMA 3R	11A	

UUT was rigid wall mounted using (4) 1/4-20 Grade 5 bolts and flat washers.
 Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

UUT 11

Test Report# 51551-5 (UUT 3)

Manufacturer: Square D by Schneider Electric
Model Line: Low Voltage Transformers
Model Number: 25S40F
Serial Number: N/A

Highest Passed Test Level						
S _{DS}	z/h	I _p	A _{flx-h}	A _{rig-h}	A _{flx-v}	A _{rig-v}
2.39	1	1.5	3.82	2.87	1.93	0.78
2.88	0					

Dimensions/Weights			
Depth (in)	Width (in)	Height (in)	Weight (lbs.)
13.5	15	20	382

Lowest Natural Frequency (Hz)		
Front-Back	Side-Side	Vertical
N/A	N/A	N/A

Building Code
 CBC 2022

Test Criteria
 ICC-ES AC156

Construction/Option Summary
 Sealed resin filled carbon steel enclosure. Copper windings.

UUT Mounting Details:



UUT was rigid wall mounted using (4) 1/2-13 Grade 5 bolts and flat washers.
 Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

List of Included Subcomponents

Description	Model #	Wt. (lbs.)
Core & Coil - 1 PH Cu	25 kVA	382
Enclosure - NEMA 3R	15B	

UUT 12

Test Report# 51551-5 (UUT 2)

Manufacturer: Square D by Schneider Electric
Model Line: Low Voltage Transformers
Model Number: 30T2F
Serial Number: N/A

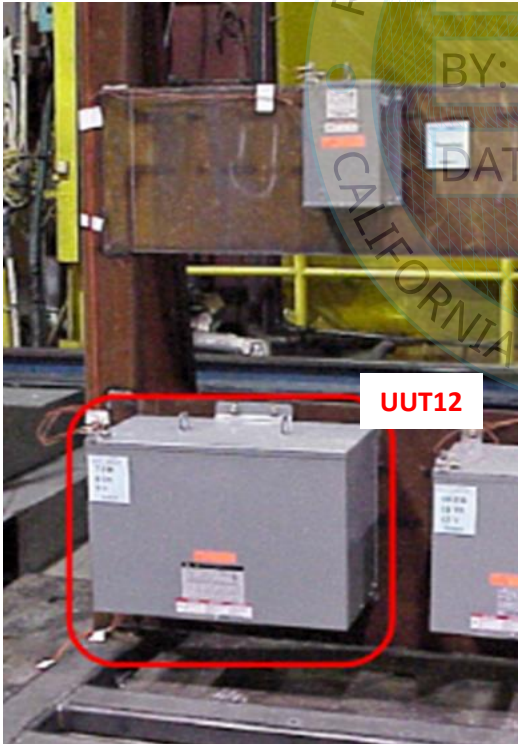
Highest Passed Test Level						
S _{DS}	z/h	I _p	A _{flx-h}	A _{rig-h}	A _{flx-v}	A _{rig-v}
2.39	1		3.82	2.87	1.93	0.78
2.88	0	1.5				

Dimensions/Weights			
Depth (in)	Width (in)	Height (in)	Weight (lbs.)
13.5	25	22	664

Lowest Natural Frequency (Hz)		
Front-Back	Side-Side	Vertical
N/A	N/A	N/A

Building Code	Test Criteria	Construction/Option Summary
CBC 2022	ICC-ES AC156	Sealed resin filled carbon steel enclosure. Copper windings.

UUT Mounting Details:	List of Included Subcomponents
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Description	Model #	Wt. (lbs.)
Core & Coil - 3 PH Cu	30 kVA	664
Enclosure - NEMA 3R	16C	

UUT was rigid wall mounted using (2) 1/2-13 and (2) 1/4-20 Grade 5 bolts and flat washers. Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

UUT 13

Test Report# D191457-Rev 1 (UUT 9A)

Manufacturer: Square D by Schneider Electric
Model Line: Low Voltage Transformers
Model Number: 2S1F
Serial Number: N/A

Highest Passed Test Level						
S _{DS}	z/h	I _p	A _{flx-h}	A _{rig-h}	A _{flx-v}	A _{rig-v}
1.92	1		3.07	2.30	1.82	0.73
2.72	0	1.5				

Dimensions/Weights			
Depth (in)	Width (in)	Height (in)	Weight (lbs.)
6.6	8.7	9.6	48

Lowest Natural Frequency (Hz)		
Front-Back	Side-Side	Vertical
N/A	N/A	N/A

Building Code
CBC 2022

Test Criteria
ICC-ES AC156

Construction/Option Summary
Sealed resin filled carbon steel enclosure. Aluminum windings.

UUT Mounting Details:



List of Included Subcomponents

REVIEWED FOR CODE COMPLIANCE
HCAi
OSP-0023
BY: Mohammad
DATE: 04/18/2023
CALIFORNIA BUILDING CODE, 2022

Description	Model #	Wt. (lbs.)
Core & Coil - 1 PH Al	2 kVA	48
Enclosure - NEMA 3R	9A	

UUT was rigid wall mounted using (4) 1/4-20 Grade 5 bolts and flat washers.
Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

UUT 14

Test Report# D193947-Rev 1 (UUT 15B)

Manufacturer: Square D by Schneider Electric
Model Line: Low Voltage Transformers
Model Number: 25S3025F-AL
Serial Number: N/A

Highest Passed Test Level						
S _{DS}	z/h	I _p	A _{flx-h}	A _{rig-h}	A _{flx-v}	A _{rig-v}
1.94	1	1.5	3.10	2.33	1.84	0.74
2.74	0					

Dimensions/Weights

Depth (in)	Width (in)	Height (in)	Weight (lbs.)
13.5	15	20	340

Lowest Natural Frequency (Hz)

Front-Back	Side-Side	Vertical
N/A	N/A	N/A

Building Code

CBC 2022

Test Criteria

ICC-ES AC156

Construction/Option Summary

Sealed resin filled carbon steel enclosure. Aluminum windings.

UUT Mounting Details:

List of Included Subcomponents



Description	Model #	Wt. (lbs.)
Core & Coil - 1 PH Al	25 kVA	340
Enclosure - NEMA 3R	15B	

UUT was rigid wall mounted using (4) 1/2-13 Grade 5 bolts and flat washers. Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

UUT 15

Test Report# D198959-Rev 1 (UUT 7)

Manufacturer: Square D by Schneider Electric
Model Line: Low Voltage Transformers
Model Number: MPZB25S40F
Serial Number: N/A

Highest Passed Test Level						
S _{DS}	z/h	I _p	A _{flx-h}	A _{rig-h}	A _{flx-v}	A _{rig-v}
2.43	1	1.5	3.89	2.92	2.12	0.85
3.16	0					

Dimensions/Weights			
Depth (in)	Width (in)	Height (in)	Weight (lbs.)
13.5	21.4	51	470

Lowest Natural Frequency (Hz)		
Front-Back	Side-Side	Vertical
N/A	N/A	N/A

Building Code	Test Criteria	Construction/Option Summary
CBC 2022	ICC-ES AC156	Carbon steel enclosure. Aluminum windings.

UUT Mounting Details:	List of Included Subcomponents
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Description	Model #	Wt. (lbs.)
Core & Coil - 1 PH Cu	25 kVA	470
Enclosure - NEMA 3R	BB	
Molded Case Circuit Breaker, 480V, 100A	FAL24100	
Miniature Circuit Breaker, 120V/240V, 125A	QOB2125	

UUT was rigid wall mounted using (4) 1/2-13 and (2) 1/4-20 Grade 5 bolts and flat washers. Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

UUT 16

Test Report# D198959-Rev 1 (UUT 8)

Manufacturer: Square D by Schneider Electric
Model Line: Low Voltage Transformers
Model Number: MPZB30T2F
Serial Number: N/A

Highest Passed Test Level						
S _{DS}	z/h	I _p	A _{flx-h}	A _{rig-h}	A _{flx-v}	A _{rig-v}
2.25	1		3.60	2.70	2	0.8
2.98	0	1.5				

Dimensions/Weights			
Depth (in)	Width (in)	Height (in)	Weight (lbs.)
13.6	27.4	51	750

Lowest Natural Frequency (Hz)		
Front-Back	Side-Side	Vertical
N/A	N/A	N/A

Building Code
CBC 2022

Test Criteria
ICC-ES AC156

Construction/Option Summary
Carbon steel enclosure. Copper windings.

UUT Mounting Details:



UUT was rigid wall mounted using (4) 1/2-13 and (2) 1/4-20 Grade 5 bolts and flat washers. Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

List of Included Subcomponents

Description	Model #	Wt. (lbs.)
Core & Coil - 3 PH Cu	30 kVA	
Enclosure - NEMA 3R	CC	
Molded Case Circuit Breaker, 480V, 90A	FAL34090	750
Miniature Circuit Breaker, 240V, 100A	QOB3100	

UUT 17

Test Report# PR036473-TR-15 (UUT 5)

Manufacturer: Square D by Schneider Electric
Model Line: Low Voltage Transformers
Model Number: EX300T3H
Serial Number: N/A

Highest Passed Test Level						
S _{DS}	z/h	I _p	A _{flx-h}	A _{rig-h}	A _{flx-v}	A _{rig-v}
2.31	1		3.70	2.77	2.55	0.62
2.31	0	1.5				

Dimensions/Weights			
Depth (in)	Width (in)	Height (in)	Weight (lbs.)
32.8	40.1	57.5	2020

Lowest Natural Frequency (Hz)		
Front-Back	Side-Side	Vertical
31.0	9.5	18.0

Building Code
 CBC 2022

Test Criteria
 ICC-ES AC156

Construction/Option Summary
 ... Ventilated carbon steel enclosure. Aluminum windings.

UUT Mounting Details:



UUT was rigid base mounted using (4) 1/2-13 Grade 5 bolts and flat washers.
 Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

List of Included Subcomponents

Description	Model #	Wt. (lbs.)
Core & Coil - 3 PH Al	300 kVA	2020
Enclosure - NEMA 2	25J	

SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

UUT 18

Test Report# PR036473-TR-15 (UUT 6A)

Manufacturer: Square D by Schneider Electric
Model Line: Low Voltage Transformers
Model Number: EX300T3HCU
Serial Number: N/A

Highest Passed Test Level						
S _{DS}	z/h	I _p	A _{flx-h}	A _{rig-h}	A _{flx-v}	A _{rig-v}
2.13	1		3.41	2.56	1.43	0.58
2.13	0	1.5				

Dimensions/Weights			
Depth (in)	Width (in)	Height (in)	Weight (lbs.)
32.8	40.1	57.5	2136

Lowest Natural Frequency (Hz)		
Front-Back	Side-Side	Vertical
>33.3	13.5	17.0

Building Code
CBC 2022

Test Criteria
ICC-ES AC156

Construction/Option Summary
Ventilated carbon steel enclosure. Copper windings.

UUT Mounting Details:

List of Included Subcomponents



Description	Model #	Wt. (lbs.)
Core & Coil - 3 PH Cu	300 kVA	2136
Enclosure - NEMA 2	25J	

UUT was rigid base mounted using (4) 1/2-13 Grade 5 bolts and flat washers.
 Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

UUT 19

Test Report# PR036473-TR-15 (UUT 7A)

Manufacturer: Square D by Schneider Electric
Model Line: Low Voltage Transformers
Model Number: EX750T68H
Serial Number: N/A

Highest Passed Test Level						
S _{DS}	z/h	I _p	A _{flx-h}	A _{rig-h}	A _{flx-v}	A _{rig-v}
2.13	1		3.41	2.56	1.43	0.58
2.13	0	1.5				

Dimensions/Weights			
Depth (in)	Width (in)	Height (in)	Weight (lbs.)
44.5	56	76	4366

Lowest Natural Frequency (Hz)		
Front-Back	Side-Side	Vertical
15.0	>33.3	>33.3

Building Code	Test Criteria	Construction/Option Summary
CBC 2022	ICC-ES AC156	Ventilated carbon steel enclosure. Aluminum windings.

UUT Mounting Details:	List of Included Subcomponents
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UUT was rigid base mounted using (4) 1/2-13 Grade 5 bolts and flat washers. Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

Description	Model #	Wt. (lbs.)
Core & Coil - 3 PH Al	750 kVA	4366
Enclosure - NEMA 2	31J	

UUT 20

Test Report# PR036473-TR-15 (UUT 8A)

Manufacturer: Square D by Schneider Electric
Model Line: Low Voltage Transformers
Model Number: EX750T68HCU
Serial Number: N/A

Highest Passed Test Level						
S _{DS}	z/h	I _p	A _{flx-h}	A _{rig-h}	A _{flx-v}	A _{rig-v}
2.17	1					
2.17	0	1.5	3.47	2.60	1.45	0.59

Dimensions/Weights			
Depth (in)	Width (in)	Height (in)	Weight (lbs.)
44.5	56	76	5002

Lowest Natural Frequency (Hz)		
Front-Back	Side-Side	Vertical
29.0	>33.3	>33.3

Building Code	Test Criteria	Construction/Option Summary
CBC 2022	ICC-ES AC156	Ventilated carbon steel enclosure. Copper windings.

UUT Mounting Details:	List of Included Subcomponents
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UUT was rigid base mounted using (4) 1/2-13 Grade 5 bolts and flat washers.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

Description	Model #	Wt. (lbs.)
Core & Coil - 3 PH Cu	750 kVA	5002
Enclosure - NEMA 2	31J	
Mounting L-bracket Kit	NHA77404	