



OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT
FACILITIES DEVELOPMENT DIVISION

APPLICATION FOR OSHPD SPECIAL SEISMIC
CERTIFICATION PREAPPROVAL (OSP)

OFFICE USE ONLY

APPLICATION #: OSP – 0089 – 10

OSHPD Special Seismic Certification Preapproval (OSP)

Type: ☐ New ☒ Renewal

Manufacturer Information

Manufacturer: Siemens Energy Management

Manufacturer's Technical Representative: Michael White

Mailing Address: 501 Fountain Parkway, Grand Prairie, TX, 75050

Telephone: 817.652.6526 Email: michaelwhite@siemens.com

Product Information

Product Name: SWBD & IPS SWBD Switchboards

Product Type: Switchboards

Product Model Number: See attachments

(List all unique product identification numbers and/or part numbers)

General Description: Integrated power system switchboards. Seismic enhancements made to the test units required to address anomalies observed during testing shall be incorporated into the production units.

Mounting Description: Rigid Base Mounted

Applicant Information

Applicant Company Name: TRU Compliance, LLC

Contact Person: Matthew J. Tobolski, PhD, S.E.

Mailing Address: 960 SW Disk Dr., Suite 104, Bend, OR 97702

Telephone: 844.878.0200 Email: mtobolski@trucompliance.com

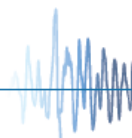
I hereby agree to reimburse the Office of Statewide Health Planning and Development review fees in accordance with the California Administrative Code, 2016.

Signature of Applicant:  Date: 1/03/2017

Title: President & CEO Company Name: TRU Compliance, LLC

"Access to Safe, Quality Healthcare Environments that Meet California's Diverse and Dynamic Needs"

STATE OF CALIFORNIA – HEALTH AND HUMAN SERVICES AGENCY
OSH-FD-759 (REV 12/16/15)



OSHPD

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

Company Name: TRU Compliance, LLC
Name: Matthew J. Tobolski, PhD, S.E. California License Number: S5648
Mailing Address: 960 SW Disk Dr., Suite 104, Bend, OR 97702
Telephone: 844.878.0200 Email: mtobolski@trucompliance.com

Supports and Attachments Preapproval

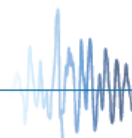
- ☐ Supports and attachments are preapproved under OPM-
(Separate application for OSHPD Preapproval of Manufacturer's Certification (OPM) of Supports and attachments is required)
☒ Supports and attachments are not preapproved

Certification Method

- ☒ Testing in accordance with: ☒ ICC-ES AC156
☐ Other (Please Specify): _____

Testing Laboratory

Company Name: Environmental Testing Laboratory (ETL)
Contact Name: Paul E. Little
Mailing Address: 11034 Indian Trail, Dallas, TX, 75229
Telephone: 972.247.9657 Email: paul@etldallas.com





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Seismic Parameters

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

Design Basis of Equipment or Components (F_p/W_p) = 1.27 ($S_{DS} = 1.69$ g; $z/h = 1.0$); 1.22 ($S_{DS} = 2.7$ g; $z/h = 0.0$)

S_{DS} (Design spectral response acceleration at short period, g) = 1.69 ($z/h = 1.0$); 2.7 ($z/h = 0.0$)

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) = 2.0

I_p (Importance factor) = 1.5

z/h (Height factor ratio) = 1.0 ($S_{DS} = 1.69$ g); 0.0 ($S_{DS} = 2.7$ g)

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) = _____

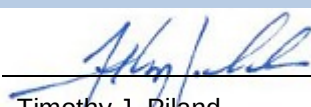
Tank(s) designed in accordance with ASME BPVC, 2015: ☐ Yes ☒ No

List of Attachments Supporting Special Seismic Certification

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

☒ Other(s) (Please Specify): Attachment

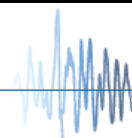
OSHPD Approval (For Office Use Only) – Approval Expires on December 31, 2022

Signature:  Date: March 9, 2017

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. 15026



Manufacturer: Siemens							TABLE 1	
Model Line: Switchboards								
Certified Product Construction Summary:								
Standard frames: 12GA. Carbon steel ring channel assemblies and 14GA. carbon steel corner and intermediate posts.								
Skins: 16GA. Carbon steel panels								
Certified Options Summary:								
Copper bus 600A-4000A or aluminum bus 800A-4000A.								
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:			$S_{DS} = 1.69 g \quad z/h=1.0$		$I_P = 1.5$
						$S_{DS} = 2.7 g \quad z/h=0.0$		
Model Line	Model	Dimensions (in)				Weight (lb)	Notes	UUT
		Depth	Width	Height	Max CG			
SWBD	SB1 Service/Distribution Section	20	32	90	45	690		Interp.
		20	38	90	45	820		Interp.
		28	32	90	45	1,208		Interp.
		28	38	90	45	1,435		Interp.
	SB2 Service/Distribution Section	20	32	90	45	690		Interp.
		20	38	90	45	820		Interp.
		28	32	90	45	1,208		Interp.
		28	38	90	45	1,435		Interp.
	SB3 Service/Distribution Section	20	32	90	45	690		Interp.
		20	38	90	45	820	UUT: 820 lbs.	4
		28	32	90	45	1,208		Interp.
		28	38	90	45	1,435	UUT: 702 lbs.	1
IPS SWBD	Single Width Modules	20	20	90	43	431		Extrap.
		20	25	90	43	539	UUT: 511 lbs.	9
		20	32	90	43	690		Interp.
		20	38	90	43	820		Interp.
		28	20	90	43	755		Interp.
		28	25	90	43	944		Interp.
		28	32	90	43	1,208		Interp.
		28	38	90	43	1,435	UUT: 1,435 lbs.	6
	Double Width Modules	20	38	90	43	820		Interp.
		28	38	90	43	1,435		Interp.

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SPECIAL SEISMIC CERTIFICATION CERTIFIED COMPONENT MATRIX

TRU PROJECT NO. 15026



Manufacturer: Siemens							TABLE 2	
Model Line: Switchboards								
Certified Product Construction Summary: Heavy Duty Frames: 12GA. carbon steel ring channel assemblies and 12GA. carbon steel corner and intermediate posts. Skins: 16GA. Carbon steel panels								
Certified Options Summary: Weatherproof enclosure: front (11.13" depth) extension with front door & roof cap assemblies. 14GA. carbon steel covers and 12GA. Carbon steel door. Copper bus 600A-4000A or aluminum bus 800A-4000A.								
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:			$S_{DS} = 1.69 g \quad z/h=1.0$ $S_{DS} = 2.7 g \quad z/h=0.0$ $I_P = 1.5$		
Model Line	Model	Dimensions (in)				Weight (lb)	Notes	UUT
		Depth	Width	Height	Max CG			
SWBD	SB1 Service/Distribution Section	20	32	90	45	690		Extrap.
		20	38	90	45	820		Interp.
		28	32	90	45	1,208		Interp.
		28	38	90	45	1,435		Interp.
		28	40	90	45	1,511		Interp.
		38	32	90	45	1,690		Interp.
		38	38	90	45	2,007		Interp.
		38	40	90	45	2,113		Interp.
	SB2 Service/Distribution Section	20	32	90	45	690		Extrap.
		20	38	90	45	820	UUT: 743 lbs.	3
		20	46	90	45	992		Interp.
		28	32	90	45	1,208		Interp.
		28	38	90	45	1,435		Interp.
		28	46	90	45	1,737		Interp.
		38	32	90	45	1,690		Interp.
		38	38	90	45	2,007		Interp.
		38	46	90	45	2,430		Interp.

TRU PROJECT NO. 15026

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SPECIAL SEISMIC CERTIFICATION CERTIFIED COMPONENT MATRIX

TRU PROJECT NO. 15026



Manufacturer: Siemens							TABLE 2	
Model Line: Switchboards								
Certified Product Construction Summary:								
Heavy Duty Frames: 12GA. carbon steel ring channel assemblies and 12GA. carbon steel corner and intermediate posts.								
Skins: 16GA. Carbon steel panels								
Certified Options Summary:								
Weatherproof enclosure: front (11.13" depth) extension with front door & roof cap assemblies. 14GA. carbon steel covers and 12GA. Carbon steel door. Copper bus 600A-4000A or aluminum bus 800A-4000A.								
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:			$S_{DS} = 1.69 g \quad z/h=1.0$		$I_P = 1.5$
						$S_{DS} = 2.7 g \quad z/h=0.0$		
Model Line	Model	Dimensions (in)				Weight (lb)	Notes	UUT
		Depth	Width	Height	Max CG			
IPS SWBD	Single Width Modules	20	20	90	45	431		Extrap.
		20	25	90	45	539		Extrap.
		20	32	90	45	690		Extrap.
		20	38	90	45	820		Interp.
		20	46	90	45	992		Interp.
		28	20	90	45	755		Interp.
		28	25	90	45	944		Interp.
		28	32	90	45	1,208		Interp.
		28	38	90	45	1,435		Interp.
		28	46	90	45	1,737		Interp.
		38	20	90	45	1,057		Interp.
		38	25	90	45	1,321		Interp.
		38	32	90	45	1,690		Interp.
		38	38	90	45	2,007		Interp.
		38	46	90	45	2,430		Interp.
	Double Width Modules	20	38	90	45	820		Interp.
		20	48	90	45	1,035		Interp.
		28	38	90	45	1,435		Interp.
		28	48	90	45	1,813		Interp.
		38	38	90	45	2,007		Interp.
		38	48	90	45	2,430		Interp.

SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENT MATRIX

TRU PROJECT NO. 15026



Manufacturer: Siemens		Table Description: Sentron Circuit Breakers				TABLE 3	
Model Line: Switchboards							
Building Code: CBC 2016		Seismic Certification Limits:		$S_{DS} = 1.69\text{ g}$ $z/h = 1.0$	$I_P = 1.5$		
				$S_{DS} = 2.7\text{ g}$ $z/h = 0.0$			
Component Type	Manufacturer	Model		Description	Notes	UUT	
Circuit Breaker	Siemens	FD (70-250A)	FD6	2/3P		Interp.	
			HFD6	2/3P, HIC		Interp.	
			HHFD6	2/3P, EHIC		Interp.	
			FXD6	2/3P, NIT	UUT: FXD63B070 (70A)	4	
			HFXD6	2/3P, NIT, HIC		Interp.	
			HHFXD6	2/3P, NIT, EHIC		Interp.	
			CFD6	2/3P, CL		Interp.	
		JD (200-400A)	JD2	2P			Interp.
			JXD2	2P, NIT	UUT: JXD2B200 (200A)	4	
			JD6	2/3P			Interp.
			HJD6	2/3P, HIC			Interp.
			HHJD6	2/3P, EHIC			Interp.
			JXD6	2/3P, NIT			Interp.
			HJXD6	2/3P, NIT, HIC			Interp.
			HHJXD6	2/3P, NIT, EHIC			Interp.
			CJD6	2/3P, CL			Interp.
			SJD6	3P, SST	UUT: SJD69200 (200A)	4	
			SHJD6	3P, SST, HIC			Interp.
			SCJD6	3P, SST, CL			Interp.
NOTES: CL: Current Limiting; SST: Solid State Trip; NIT: Non-interchangeable Trip; HIC: High IC rating; EHIC: Extra High IC Rating							

NOTES: CL: Current Limiting; SST: Solid State Trip; NIT: Non-interchangeable Trip; HIC: High IC rating; EHIC: Extra High IC Rating

SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENT MATRIX

TRU PROJECT NO. 15026



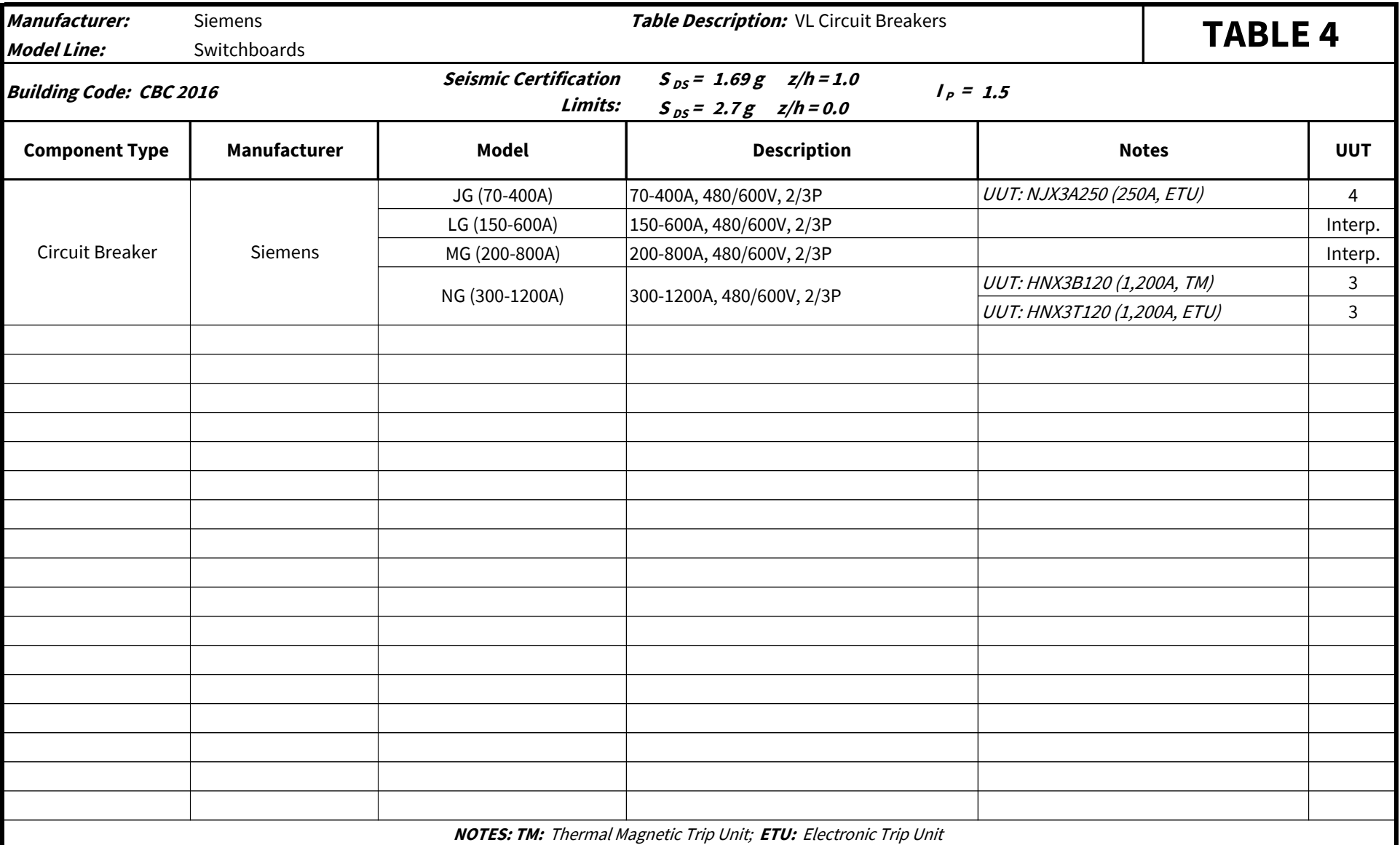
Manufacturer: Siemens		Table Description: Sentron Circuit Breakers				TABLE 3
Model Line: Switchboards						
Building Code: CBC 2016		Seismic Certification Limits:		$S_{DS} = 1.69\text{ g}$ $z/h = 1.0$	$I_P = 1.5$	
Model Line: Switchboards		Seismic Certification Limits:		$S_{DS} = 2.7\text{ g}$ $z/h = 0.0$		
Component Type	Manufacturer	Model		Description	Notes	UUT
Circuit Breaker	Siemens	LD (250-600A)	LD6	2/3P		Interp.
			HLD6	2/3P, HIC		Interp.
			HHLD6	2/3P, EHIC		Interp.
			LXD6	2/3P, NIT		Interp.
			HLXD6	2/3P, NIT, HIC		Interp.
			HHLXD6	2/3P, NIT, EHIC		Interp.
			CLD6	2/3P, CL		Interp.
			SLD6	3P, SST		Interp.
			SHLD6	3P, SST, HIC		Interp.
			SCLD6	3P, SST, CL		Interp.
		MD (500-800A)	MD6	2/3P		Interp.
			LMD6	2/3P, line/load lug installed		Interp.
			HMD6	2/3P, HIC		Interp.
			HLMD6	2/3P, HIC, line/load lug installed		Interp.
			MXD6	2/3P, NIT		Interp.
			LMXD6	2/3P, NIT, line/load lug installed		Interp.
			HMXD6	2/3P, NIT, HIC		Interp.
			HLMXD6	2/3P, NIT, HIC, line/load lug installed		Interp.
			CMD6	2/3P, CL		Interp.
			SMD6	3P, SST		Interp.
			SHMD6	3P, SST, HIC		Interp.
			SCMD6	3P, SST, CL		Interp.
NOTES: CL: Current Limiting; SST: Solid State Trip; NIT: Non-interchangeable Trip; HIC: High IC rating; EHIC: Extra High IC Rating						

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SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENT MATRIX

TRU PROJECT NO. 15026



Manufacturer: Siemens		Table Description: WL Breakers			TABLE 5
Model Line: Switchboards					
Building Code: CBC 2016		Seismic Certification Limits:	$S_{DS} = 1.69 g$ $z/h = 1.0$	$I_P = 1.5$	
		$S_{DS} = 2.7 g$ $z/h = 0.0$			
Component Type	Manufacturer	Model	Description	Notes	UUT
Circuit Breaker	Siemens	WLS1F308XXXXXX**	0800A, IC S, Frame size 1, Fixed		Extrap.
		WLS1F312XXXXXX**	1200A, IC S, Frame size 1, Fixed		Extrap.
		WLS1F316XXXXXX**	1600A, IC S, Frame size 1, Fixed		Extrap.
		WLS1F320XXXXXX**	2000A, IC S, Frame size 1, Fixed		Extrap.
		WLL1F308XXXXXX**	0800A, IC L, Frame size 1, Fixed		Extrap.
		WLL1F312XXXXXX**	1200A, IC L, Frame size 1, Fixed		Extrap.
		WLL1F316XXXXXX**	1600A, IC L, Frame size 1, Fixed		Extrap.
		WLL1F320XXXXXX**	2000A, IC L, Frame size 1, Fixed		Extrap.
		WLS2F308XXXXXX**	0800A, IC S, Frame size 2, Fixed	<i>UUT: WLS2F308NH9RCQW</i>	1
		WLS2F312XXXXXX**	1200A, IC S, Frame size 2, Fixed		Interp.
		WLS2F316XXXXXX**	1600A, IC S, Frame size 2, Fixed		Interp.
		WLS2F320XXXXXX**	2000A, IC S, Frame size 2, Fixed		Interp.
		WLL2F308XXXXXX**	0800A, IC L, Frame size 2, Fixed		Interp.
		WLL2F312XXXXXX**	1200A, IC L, Frame size 2, Fixed		Interp.
		WLL2F316XXXXXX**	1600A, IC L, Frame size 2, Fixed		Interp.
		WLL2F320XXXXXX**	2000A, IC L, Frame size 2, Fixed		Interp.
		WLL2F325XXXXXX**	2500A, IC L, Frame size 2, Fixed		Interp.
		WLL2F330XXXXXX**	3000A, IC L, Frame size 2, Fixed		Interp.
NOTES: "X" Digits are listed in subsequent tables. "*" Digits do not change physical/mechanical construction and do not effect seismic certification.					

NOTES: "X" Digits are listed in subsequent tables. "*" Digits do not change physical/mechanical construction and do not effect seismic certification.

SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENT MATRIX

TRU PROJECT NO. 15026



Manufacturer: Siemens		Table Description: WL Breakers			TABLE 5
Model Line: Switchboards					
Building Code: CBC 2016		Seismic Certification Limits: $S_{DS} = 1.69\text{ g}$ $z/h = 1.0$ $S_{DS} = 2.7\text{ g}$ $z/h = 0.0$		$I_P = 1.5$	
Component Type	Manufacturer	Model	Description	Notes	UUT
Circuit Breaker	Siemens	WLC2F308XXXXXX**	0800A, IC C, Frame size 2, Fixed		Interp.
		WLC2F312XXXXXX**	1200A, IC C, Frame size 2, Fixed		Interp.
		WLC2F316XXXXXX**	1600A, IC C, Frame size 2, Fixed		Interp.
		WLC2F320XXXXXX**	2000A, IC C, Frame size 2, Fixed		Interp.
		WLC2F325XXXXXX**	2500A, IC C, Frame size 2, Fixed		Interp.
		WLC2F330XXXXXX**	3000A, IC C, Frame size 2, Fixed		Interp.
		WLC3F340XXXXXX**	4000A, IC C, Frame size 3, Fixed		Interp.
		WLL3F340XXXXXX**	4000A, IC L, Frame size 3, Fixed		Interp.
		WLS1D308XXXXXX**	0800A, IC S, Frame size 1, Drawout		Extrap.
		WLS1D312XXXXXX**	1200A, IC S, Frame size 1, Drawout		Extrap.
		WLS1D316XXXXXX**	1600A, IC S, Frame size 1, Drawout		Extrap.
		WLS1D320XXXXXX**	2000A, IC S, Frame size 1, Drawout		Extrap.
		WLL1D308XXXXXX**	0800A, IC L, Frame size 1, Drawout		Extrap.
		WLL1D312XXXXXX**	1200A, IC L, Frame size 1, Drawout		Extrap.
		WLL1D316XXXXXX**	1600A, IC L, Frame size 1, Drawout		Extrap.
		WLL1D320XXXXXX**	2000A, IC L, Frame size 1, Drawout		Extrap.
NOTES: "X" Digits are listed in subsequent tables. "***" Digits do not change physical/mechanical construction and do not effect seismic certification.					

SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENT MATRIX

TRU PROJECT NO. 15026



Manufacturer: Siemens		Table Description: WL Breakers			TABLE 5
Model Line: Switchboards					
Building Code: CBC 2016		Seismic Certification Limits:	$S_{DS} = 1.69 g$ $z/h = 1.0$ $S_{DS} = 2.7 g$ $z/h = 0.0$	$I_P = 1.5$	
Component Type	Manufacturer	Model	Description	Notes	UUT
Circuit Breaker	Siemens	WLS2D308XXXXXX**	0800A, IC S, Frame size 2, Drawout		Interp.
		WLS2A308XXXXXX**	0800A, IC S, Frame size 2, Drawout		Interp.
		WLS2D312XXXXXX**	1200A, IC S, Frame size 2, Drawout		Interp.
		WLS2D316XXXXXX**	1600A, IC S, Frame size 2, Drawout		Interp.
		WLS2A316XXXXXX**	1600A, IC S, Frame size 2, Drawout		Interp.
		WLS2D320XXXXXX**	2000A, IC S, Frame size 2, Drawout		Interp.
		WLS2A320XXXXXX**	2000A, IC S, Frame size 2, Drawout		Interp.
		WLS2A332XXXXXX**	5000A, IC S, Frame size 2, Drawout		Interp.
		WLH2A308XXXXXX**	800A, IC H, Frame size 2, Drawout		Interp.
		WLH2A316XXXXXX**	1600A, IC H, Frame size 2, Drawout		Interp.
		WLH2A320XXXXXX**	2000A, IC H, Frame size 2, Drawout		Interp.
		WLH2A332XXXXXX**	5000A, IC H, Frame size 2, Drawout		Interp.
		WLL2D308XXXXXX**	0800A, IC L, Frame size 2, Drawout		Interp.
		WLL2A308XXXXXX**	0800A, IC L, Frame size 2, Drawout		Interp.
		WLL2D312XXXXXX**	1200A, IC L, Frame size 2, Drawout		Interp.
		WLL2A316XXXXXX**	1600A, IC L, Frame size 2, Drawout		Interp.
		WLL2A320XXXXXX**	2000A, IC L, Frame size 2, Drawout		Interp.
		WLL2A332XXXXXX**	5000A, IC L, Frame size 2, Drawout		Interp.
		WLN2A308XXXXXX**	800A, IC N, Frame size 2, Drawout		Interp.
		WLN2A316XXXXXX**	1600A, IC N, Frame size 2, Drawout		Interp.
NOTES: "X" Digits are listed in subsequent tables. "***" Digits do not change physical/mechanical construction and do not effect seismic certification.					

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SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENT MATRIX

TRU PROJECT NO. 15026



Manufacturer: Siemens		Table Description: WL Breaker - Options			TABLE 5.1
Model Line: Switchboards					
Building Code: CBC 2016		Seismic Certification Limits:	$S_{DS} = 1.69 g$ $z/h = 1.0$ $S_{DS} = 2.7 g$ $z/h = 0.0$	$I_p = 1.5$	
Component Type	Manufacturer	Model	Description	Notes	UUT
Rating Plug for WL Breaker	Siemens	WLXXXXXXXXXXXX**	200A maximum continous current rating		Extrap.
		WLXXXXXXXXBXXXX**	225A maximum continous current rating		Extrap.
		WLXXXXXXXXCXXXX**	250A maximum continous current rating		Extrap.
		WLXXXXXXXXDXXXX**	300A maximum continous current rating		Extrap.
		WLXXXXXXXXEXXXXX**	315A maximum continous current rating		Extrap.
		WLXXXXXXXXFXXXX**	350A maximum continous current rating		Extrap.
		WLXXXXXXXXGXXXX**	400A maximum continous current rating		Extrap.
		WLXXXXXXXXHXXXX**	450A maximum continous current rating		Extrap.
		WLXXXXXXXXJXXXX**	500A maximum continous current rating		Extrap.
		WLXXXXXXXXKXXXX**	600A maximum continous current rating		Extrap.
		WLXXXXXXXXLXXXX**	630A maximum continous current rating		Extrap.
		WLXXXXXXXXMXXXX**	700A maximum continous current rating		Extrap.
		WLXXXXXXXXNXXXX**	800A maximum continous current rating		1
		WLXXXXXXXXPXXXX**	1000A maximum continous current rating		Interp.
		WLXXXXXXXXQXXXX**	1200A maximum continous current rating		Interp.
		WLXXXXXXXXRXXXX**	1250A maximum continous current rating		Interp.
		WLXXXXXXXXTXXXX**	1600A maximum continous current rating		Interp.
		WLXXXXXXXXUXXXX**	2000A maximum continous current rating		Interp.
		WLXXXXXXXXVXXXX**	2500A maximum continous current rating		Interp.
		WLXXXXXXXXWXXXX**	3000A maximum continous current rating		Interp.
		WLXXXXXXXXZXXXX**	4000A maximum continous current rating		13

SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENT MATRIX

TRU PROJECT NO. 15026



Manufacturer: Siemens		Table Description: WL Breakers - Options			TABLE 5.2
Model Line: Switchboards					
Building Code: CBC 2016		Seismic Certification	$S_{DS} = 1.69 g$	$z/h = 1.0$	$I_p = 1.5$
		Limits:	$S_{DS} = 2.7 g$	$z/h = 0.0$	
Component Type	Manufacturer	Model	Description	Notes	UUT
Electronic Trip Unit for WL Breaker	Siemens	WLXXXXXXXXCXXXXX**	ETU745		Interp.
		WLXXXXXXXXDXXXXX**	ETU745, LCD Display		Interp.
		WLXXXXXXXXEXXXXX**	ETU745, Ground fault alarm		Interp.
		WLXXXXXXXXFXXXXX**	ETU745, LCD display, ground fault alarm		Interp.
		WLXXXXXXXXGXXXXX**	ETU745, Ground fault alarm & trip		Interp.
		WLXXXXXXXXHXXXXX**	ETU745, LCD display, ground fault alarm & trip		1
		WLXXXXXXXXJXXXXX**	ETU748		Interp.
		WLXXXXXXXXKXXXXX**	ETU748, LCD Display		Interp.
		WLXXXXXXXXLXXXXX**	ETU748, Ground fault alarm		Interp.
		WLXXXXXXXXNXXXXX**	ETU748, LCD display, ground fault alarm		Interp.
		WLXXXXXXXXPXXXXX**	ETU748, Ground fault alarm & trip		Interp.
		WLXXXXXXXXQXXXXX**	ETU748, LCD display, ground fault alarm & trip		Interp.
		WLXXXXXXXXVXXXXX**	ETU776		Interp.
		WLXXXXXXXXWXXXXX**	ETU776, ground fault alarm		Interp.
		WLXXXXXXXXYXXXXX**	ETU776, LCD display, ground fault alarm & trip		13

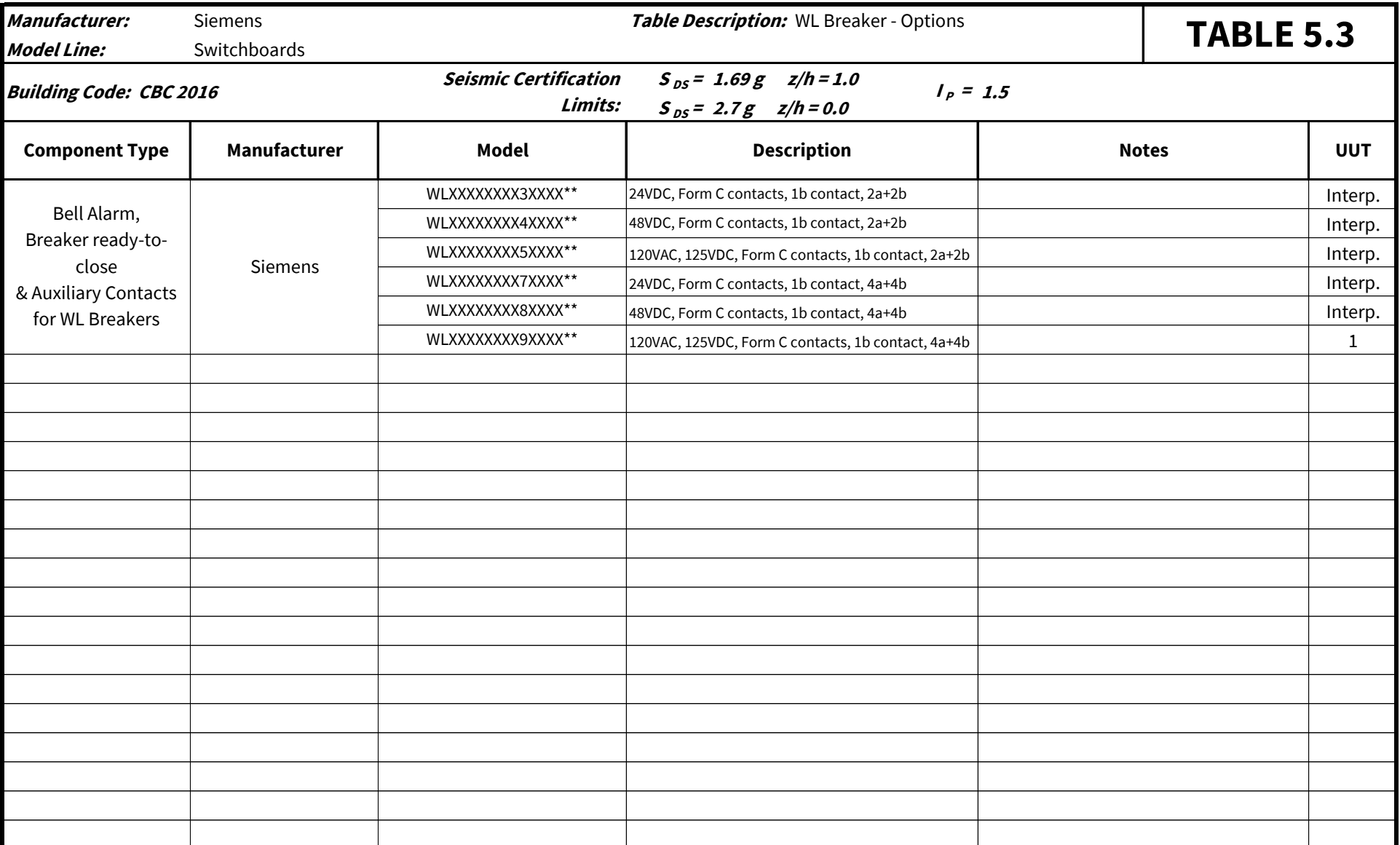
SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENT MATRIX

TRU PROJECT NO. 15026

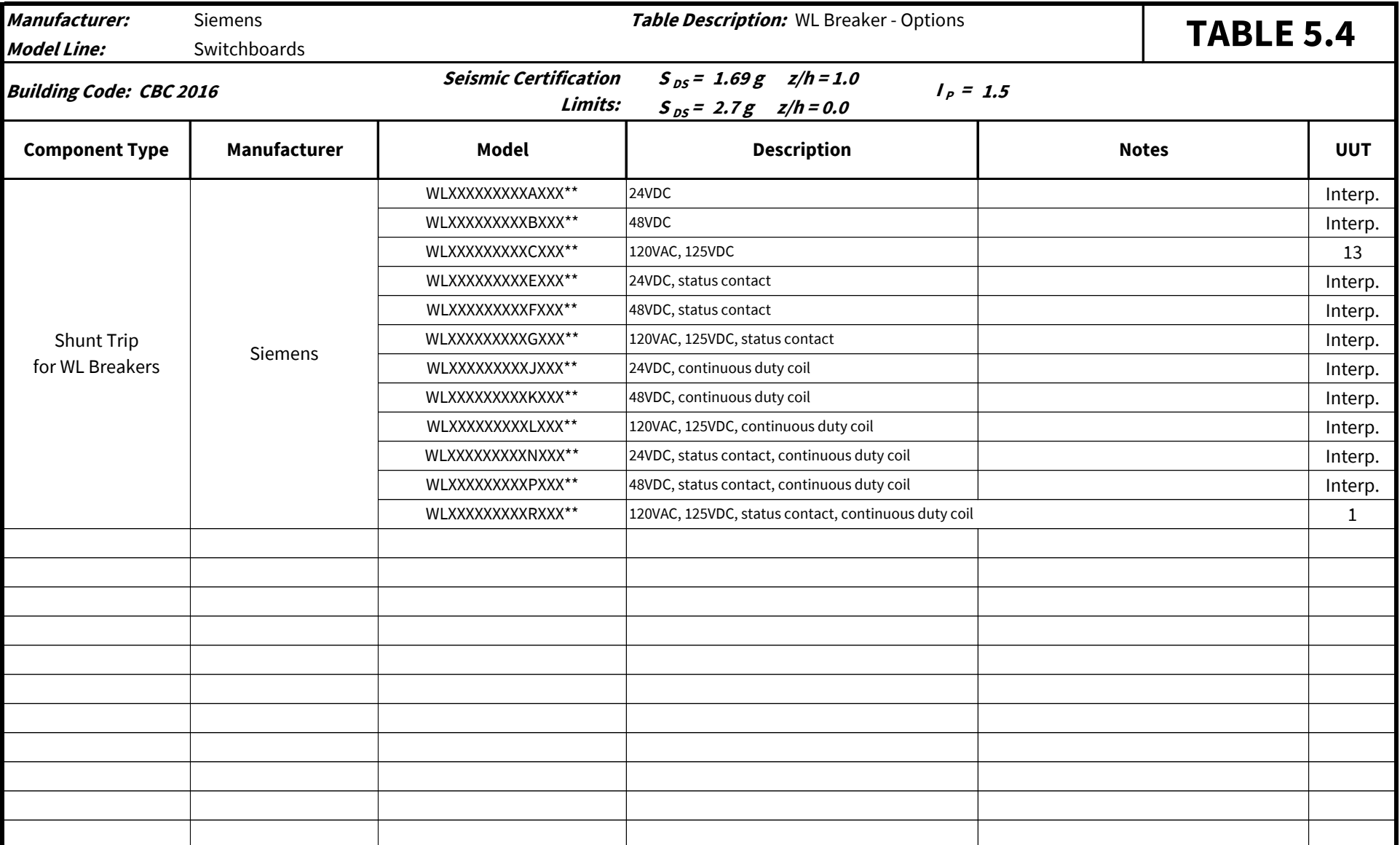


Manufacturer: Siemens		Table Description: WL Breaker - Options			TABLE 5.3
Model Line: Switchboards					
Building Code: CBC 2016		Seismic Certification Limits: $S_{DS} = 1.69\text{ g}$ $z/h = 1.0$ $I_P = 1.5$ $S_{DS} = 2.7\text{ g}$ $z/h = 0.0$			
Component Type	Manufacturer	Model	Description	Notes	UUT
Bell Alarm, Breaker ready-to-close & Auxiliary Contacts for WL Breakers	Siemens	WLXXXXXXXXXXXX**	Form C contacts		Interp.
		WLXXXXXXXXBXXXX**	1b contact		Interp.
		WLXXXXXXXXCXXXX**	2a+2b		Interp.
		WLXXXXXXXXDXXXX**	4a+4b		Interp.
		WLXXXXXXXXEXXX**	Form C contacts, 1b contact		Interp.
		WLXXXXXXXXFXXXX**	Form C contacts, 2a+2b		13
		WLXXXXXXXXGXXXX**	Form C contacts, 4a+4b		Interp.
		WLXXXXXXXXHXXXX**	1b contact, 2a+2b		Interp.
		WLXXXXXXXXIXXX**	1b contact, 4a+4b		Interp.
		WLXXXXXXXXJXXXX**	Form C contacts, 1b contact, 2a+2b		Interp.
		WLXXXXXXXXKXXXX**	Form C contacts, 1b contact, 4a+4b		Interp.
		WLXXXXXXXXLXXXX**	24VDC, Form C contacts		Interp.
		WLXXXXXXXXMXXXX**	48VDC, Form C contacts		Interp.
		WLXXXXXXXXNXXXX**	120VAC, 125VDC, Form C contacts		Interp.
		WLXXXXXXXXPXXXX**	24VDC, Form C contacts, 1b contact		Interp.
		WLXXXXXXXXQXXXX**	48VDC, Form C contacts, 1b contact		Interp.
		WLXXXXXXXXRXXXX**	120VAC, 125VDC, Form C contacts, 1b contact		Interp.
		WLXXXXXXXXTXXXX**	24VDC, Form C contacts, 2a+2b		Interp.
		WLXXXXXXXXUXXXX**	48VDC, Form C contacts, 2a+2b		Interp.
		WLXXXXXXXXVXXXX**	120VAC, 125VDC, Form C contacts, 2a+2b		Interp.
		WLXXXXXXXXYXXXX**	24VDC, Form C contacts, 4a+4b		Interp.
		WLXXXXXXXXZXXXX**	48VDC, Form C contacts, 4a+4b		Interp.
		WLXXXXXXXX1XXXX**	120VAC, 125VDC, Form C contacts, 4a+4b		Interp.

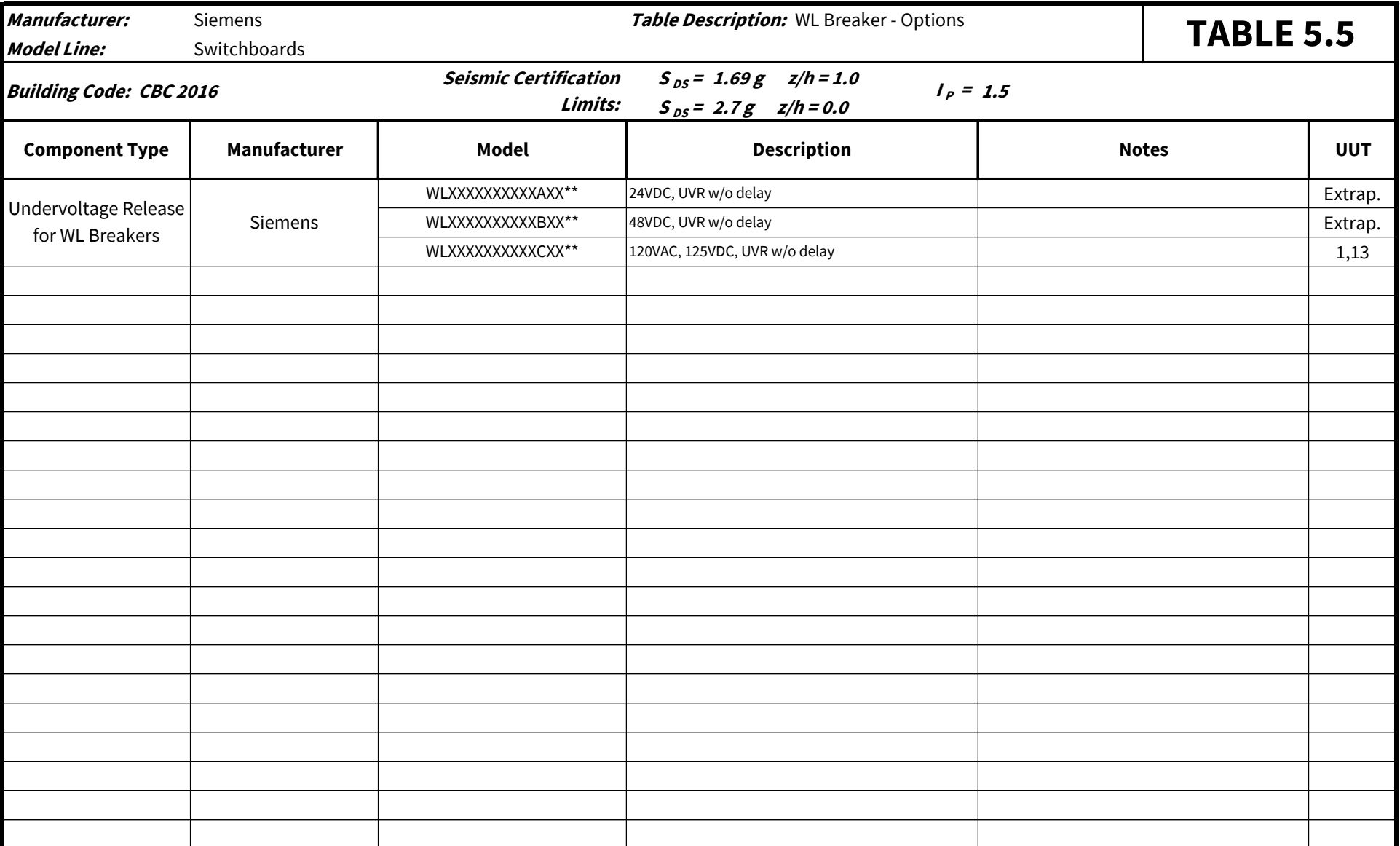
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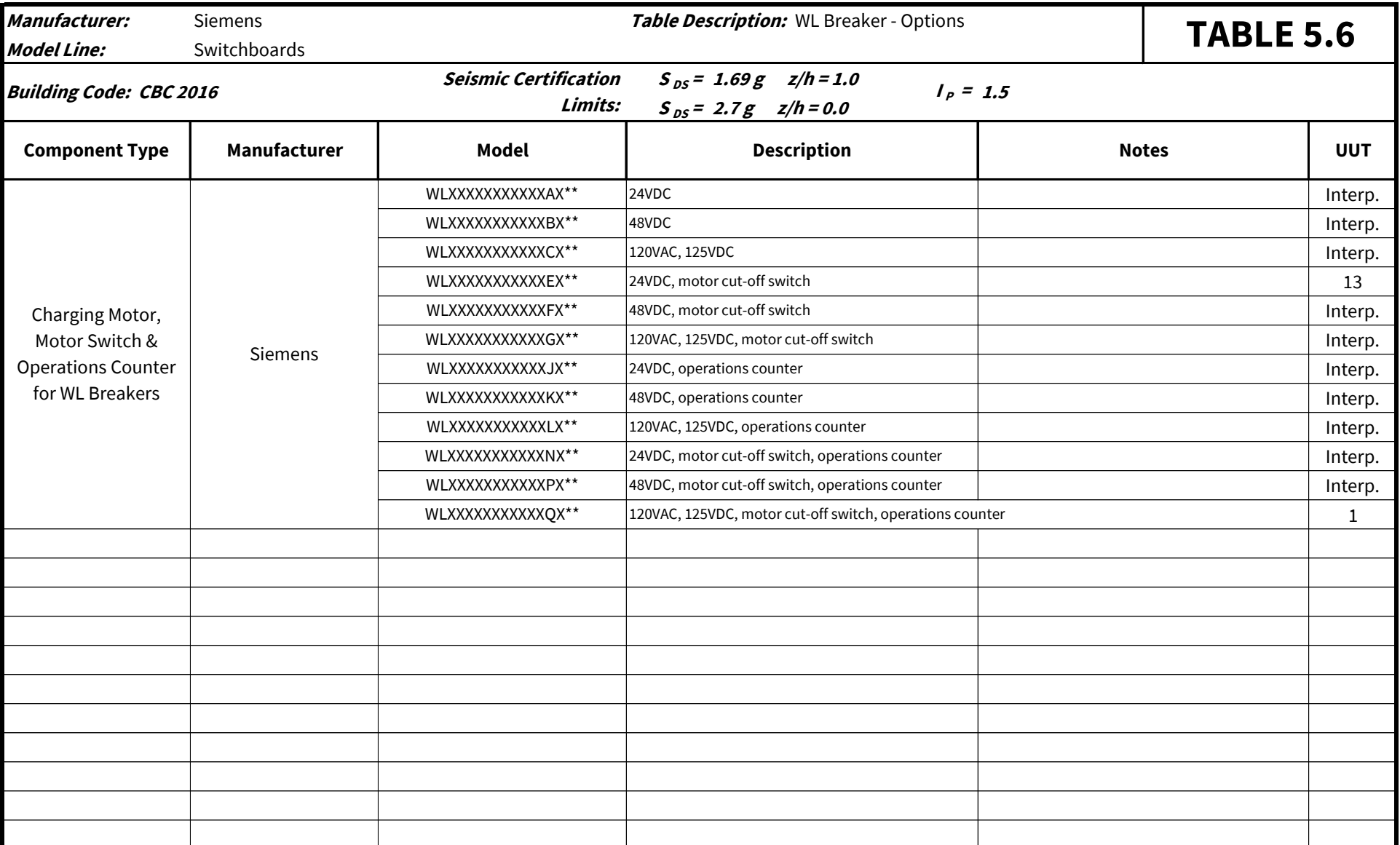
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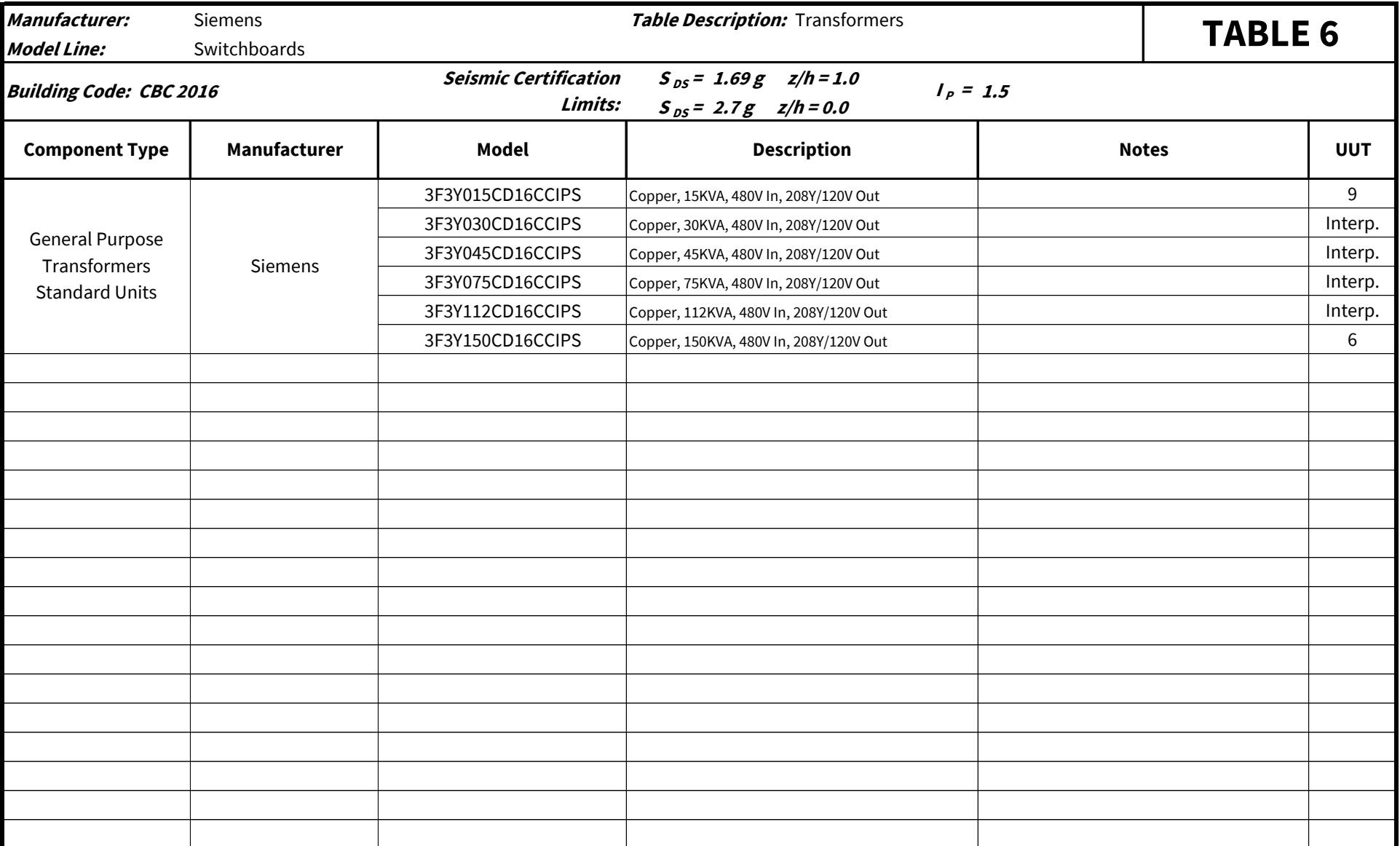
SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENT MATRIX

TRU PROJECT NO. 15026



Manufacturer: Siemens		Table Description: WL Breaker - Options			TABLE 5.7
Model Line: Switchboards					
Building Code: CBC 2016		Seismic Certification Limits:	$S_{DS} = 1.69 g$ $z/h = 1.0$ $S_{DS} = 2.7 g$ $z/h = 0.0$	$I_P = 1.5$	
Component Type	Manufacturer	Model	Description	Notes	UUT
Close Coil, Power Metering & Communications for WL Breakers	Siemens	WLXXXXXXXXXXA**	24VDC		Interp.
		WLXXXXXXXXXXB**	48VDC		Interp.
		WLXXXXXXXXXXC**	120VAC, 125VDC		Interp.
		WLXXXXXXXXXXG**	MODBUS		Interp.
		WLXXXXXXXXXXH**	PROFIBUS		Interp.
		WLXXXXXXXXXXN**	24VDC, MODBUS		Interp.
		WLXXXXXXXXXXP**	24VDC, PROFIBUS		Interp.
		WLXXXXXXXXXXS**	48VDC, MODBUS		Interp.
		WLXXXXXXXXXXT**	48VDC, PROFIBUS		Interp.
		WLXXXXXXXXXXW**	120VAC, 125VDC, MODBUS		1
		WLXXXXXXXXXXY**	120VAC, 125VDC, PROFIBUS		Interp.
		WLXXXXXXXXXXQ**	24VDC, power metering, MODBUS		Interp.
		WLXXXXXXXXXXU**	48VDC, power metering, MODBUS		Interp.
		WLXXXXXXXXXXZ**	120VAC, 125VDC, power metering, MODBUS		Interp.
		WLXXXXXXXXXXR**	24VDC, power metering, PROFIBUS		13
		WLXXXXXXXXXXV**	48VDC, power metering, PROFIBUS		Interp.
		WLXXXXXXXXXX1**	120VAC, 125VDC, power metering, PROFIBUS		Interp.
		WLXXXXXXXXXXL**	Power metering, MODBUS		Interp.
		WLXXXXXXXXXXM**	Power metering, PROFIBUS		Interp.
		WLXXXXXXXXXXF**	Power metering		Interp.
		WLXXXXXXXXXX6**	24VDC, power metering		Interp.
		WLXXXXXXXXXX7**	48VDC, power metering		Interp.
		WLXXXXXXXXXX8**	120VAC, 125VDC, power metering		Interp.

TRU PROJECT NO. 15026



SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENT MATRIX

TRU PROJECT NO. 15026



Manufacturer: Siemens		Table Description: Surge Protection Devices			TABLE 7
Model Line: Switchboards					
Building Code: CBC 2016		Seismic Certification Limits:	$S_{DS} = 1.69 g$ $z/h = 1.0$ $S_{DS} = 2.7 g$ $z/h = 0.0$	$I_P = 1.5$	
Component Type	Manufacturer	Model	Description	Notes	UUT
Surge Protection Device	Siemens	TPS3 A 06 10	120/240V, 1Ø, 3W, 100 kA per phase		Extrap.
		TPS3 A 06 15	120/240V, 1Ø, 3W, 150 kA per phase		Extrap.
		TPS3 A 06 20	120/240V, 1Ø, 3W, 200 kA per phase		Extrap.
		TPS3 A 06 25	120/240V, 1Ø, 3W, 250 kA per phase		Extrap.
		TPS3 A 06 30	120/240V, 1Ø, 3W, 300 kA per phase		Extrap.
		TPS3 A 06 40	120/240V, 1Ø, 3W, 400 kA per phase		Extrap.
		TPS3 A 06 50	120/240V, 1Ø, 3W, 500 kA per phase		Extrap.
		TPS3 B 06 10	120/240V, 3Ø, 4W, 100 kA per phase		Extrap.
		TPS3 B 06 15	120/240V, 3Ø, 4W, 150 kA per phase		Extrap.
		TPS3 B 06 20	120/240V, 3Ø, 4W, 200 kA per phase		Extrap.
		TPS3 B 06 25	120/240V, 3Ø, 4W, 250 kA per phase		Extrap.
		TPS3 B 06 30	120/240V, 3Ø, 4W, 300 kA per phase		Extrap.
		TPS3 B 06 40	120/240V, 3Ø, 4W, 400 kA per phase		Extrap.
		TPS3 B 06 50	120/240V, 3Ø, 4W, 500 kA per phase		Extrap.
		TPS3 C 06 10	120/208V, 3Ø, 4W, 100 kA per phase		1
		TPS3 C 06 15	120/208V, 3Ø, 4W, 150 kA per phase		Interp.
		TPS3 C 06 20	120/208V, 3Ø, 4W, 200 kA per phase		Interp.
		TPS3 C 06 25	120/208V, 3Ø, 4W, 250 kA per phase		Interp.
		TPS3 C 06 30	120/208V, 3Ø, 4W, 300 kA per phase		Interp.
		TPS3 C 06 40	120/208V, 3Ø, 4W, 400 kA per phase		Interp.
		TPS3 C 06 50	120/208V, 3Ø, 4W, 500 kA per phase		Interp.
		TPS3 D 06 10	240V, 3Ø, 3W, 100 kA per phase		Interp.
		TPS3 D 06 15	240V, 3Ø, 3W, 150 kA per phase		Interp.

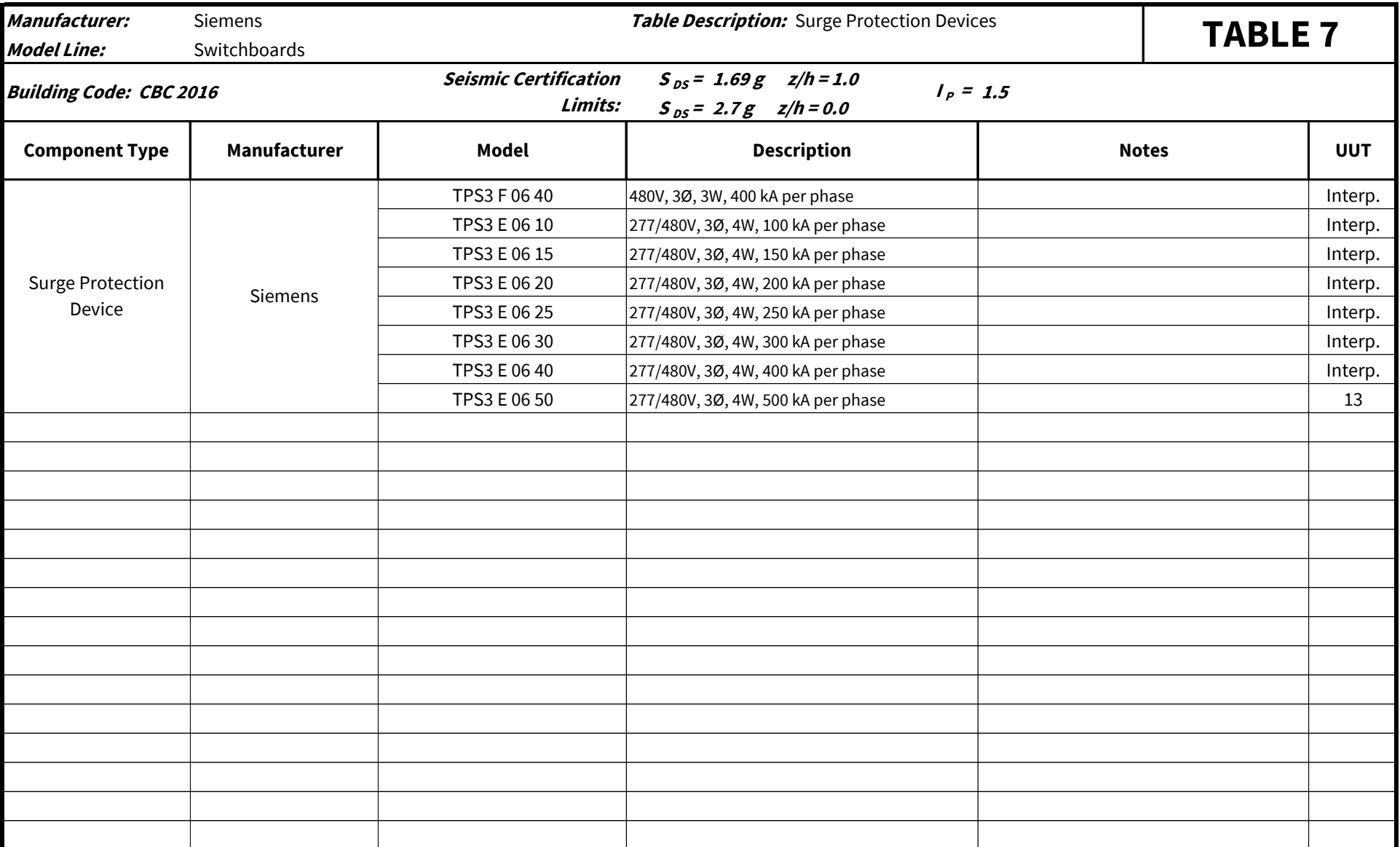
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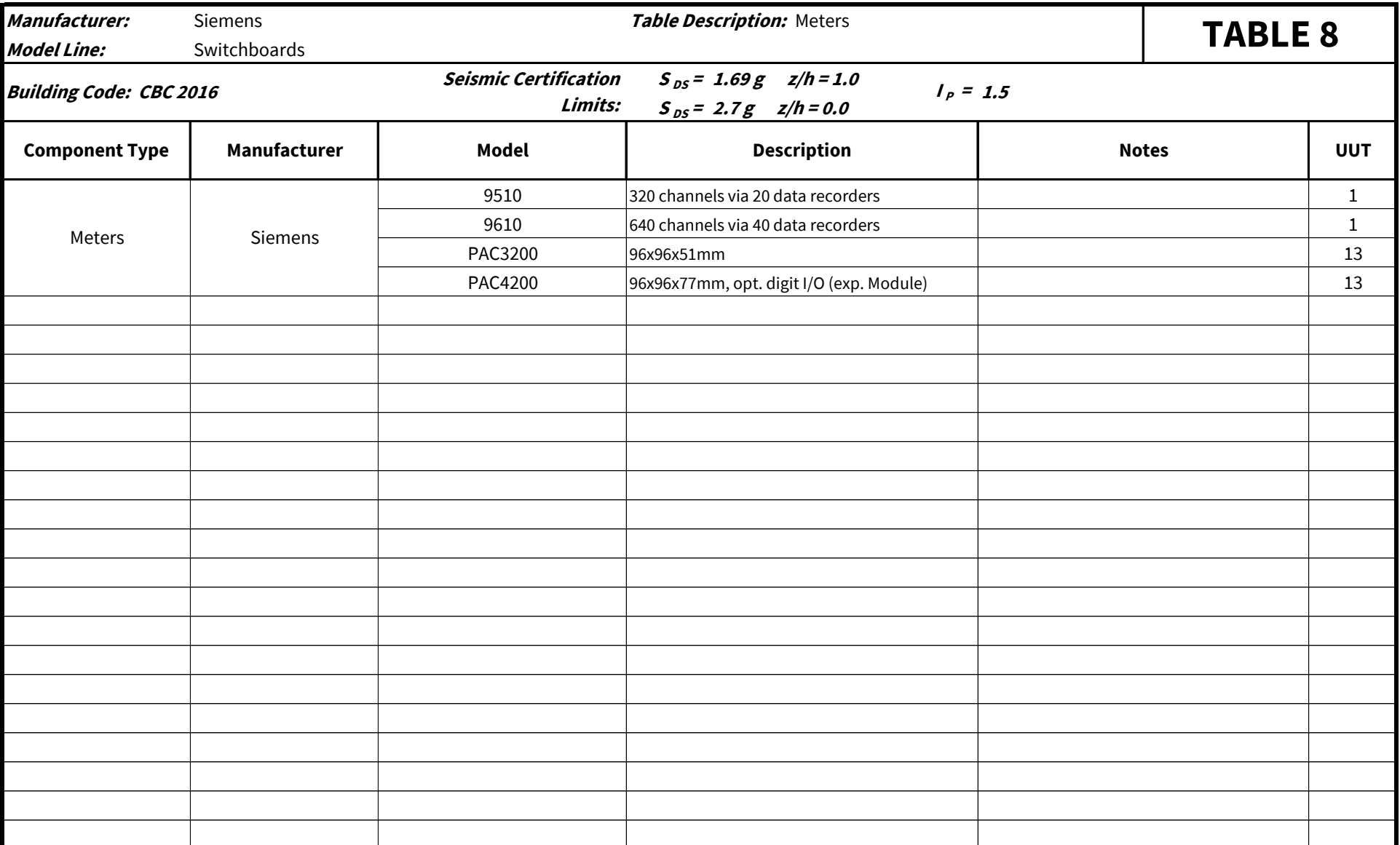


Manufacturer: Siemens		Table Description: Surge Protection Devices			TABLE 7
Model Line: Switchboards					
Building Code: CBC 2016		Seismic Certification Limits:	$S_{DS} = 1.69 g$ $z/h = 1.0$ $S_{DS} = 2.7 g$ $z/h = 0.0$	$I_P = 1.5$	
Component Type	Manufacturer	Model	Description	Notes	UUT
Surge Protection Device	Siemens	TPS3 D 06 20	240V, 3Ø, 3W, 200 kA per phase		Interp.
		TPS3 D 06 25	240V, 3Ø, 3W, 250 kA per phase		Interp.
		TPS3 D 06 30	240V, 3Ø, 3W, 300 kA per phase		Interp.
		TPS3 D 06 40	240V, 3Ø, 3W, 400 kA per phase		Interp.
		TPS3 K 06 10	380/220V, 3Ø, 4W, 100 kA per phase		Interp.
		TPS3 K 06 15	380/220V, 3Ø, 4W, 150 kA per phase		Interp.
		TPS3 K 06 20	380/220V, 3Ø, 4W, 200 kA per phase		Interp.
		TPS3 K 06 25	380/220V, 3Ø, 4W, 250 kA per phase		Interp.
		TPS3 K 06 30	380/220V, 3Ø, 4W, 300 kA per phase		Interp.
		TPS3 K 06 40	380/220V, 3Ø, 4W, 400 kA per phase		Interp.
		TPS3 K 06 50	380/220V, 3Ø, 4W, 500 kA per phase		Interp.
		TPS3 S 06 10	400/230V, 3Ø, 4W, 100 kA per phase		Interp.
		TPS3 S 06 15	400/230V, 3Ø, 4W, 150 kA per phase		Interp.
		TPS3 S 06 20	400/230V, 3Ø, 4W, 200 kA per phase		Interp.
		TPS3 S 06 25	400/230V, 3Ø, 4W, 250 kA per phase		Interp.
		TPS3 S 06 30	400/230V, 3Ø, 4W, 300 kA per phase		Interp.
		TPS3 S 06 40	400/230V, 3Ø, 4W, 400 kA per phase		Interp.
		TPS3 S 06 50	400/230V, 3Ø, 4W, 500 kA per phase		Interp.
		TPS3 F 06 10	480V, 3Ø, 3W, 100 kA per phase		Interp.
		TPS3 F 06 15	480V, 3Ø, 3W, 150 kA per phase		Interp.
		TPS3 F 06 20	480V, 3Ø, 3W, 200 kA per phase		Interp.
		TPS3 F 06 25	480V, 3Ø, 3W, 250 kA per phase		Interp.
		TPS3 F 06 30	480V, 3Ø, 3W, 300 kA per phase		Interp.

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SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENT MATRIX

TRU PROJECT NO. 15026



Manufacturer: Siemens		Table Description: Switches			TABLE 9
Model Line: Switchboards					
Building Code: CBC 2016		Seismic Certification Limits:	$S_{DS} = 1.69 g$	$z/h = 1.0$	$I_P = 1.5$
			$S_{DS} = 2.7 g$	$z/h = 0.0$	
Component Type	Manufacturer	Model	Description	Notes	UUT
Switches	Siemens	V2E2203	240VAC, 100A, 2P, 7.5HP		Interp.
		V2E3203	240VAC, 100A, 3P, 15HP		Interp.
		V2E2204	240VAC, 200A, 2P, 15HP		Interp.
		V2F3204	240VAC, 200A, 3P, 25HP		Interp.
		V7A2211	240VAC, 30-30A, 2P, 1.5HP		4
		V7A3211	240VAC, 30-30A, 3P, 3HP		Interp.
		V7B2211	240VAC, 30-30A, 2P, 1.5HP		Interp.
		V7B3211	240VAC, 30-30A, 3P, 3HP		Interp.
		V7B3211R	240VAC, 30-30A, 3P, 3HP, R-fuse		Interp.
		V7B2212	240VAC, 30-60A, 2P, 1.5-3HP		Interp.
		V7B3212	240VAC, 30-60A, 3P, 3-7.5HP		Interp.
		V7B3212R	240VAC, 30-60A, 3P, 3-7.5HP, R-fuse		Interp.
		V7B2222	240VAC, 60-60A, 2P, 3HP		Interp.
		V7B3222	240VAC, 60-60A, 3P, 7.5HP		Interp.
		V7B3222R	240VAC, 60-60A, 3P, 7.5HP, R-fuse		Interp.
		V7E2223	240VAC, 60-100A, 2P, 3-7.5HP		Interp.
		V7E3223	240VAC, 60-100A, 3P, 7.5-15HP		Interp.
		V7E2233	240VAC, 100-100A, 2P, 7.5HP		Interp.
		V7E3233	240VAC, 100-100A, 3P, 15HP		Interp.
		V7E3233R	240VAC, 100-100A, 3P, 15HP, R-fuse		Interp.
		V7E3203	240VAC, 100A, 3P, 15HP		Interp.
		V7F3644	240VAC, 200-200A, 3P, 25HP		Interp.
		V7F3244R	240VAC, 200-200A, 3P, 25HP, R-fuse		Interp.

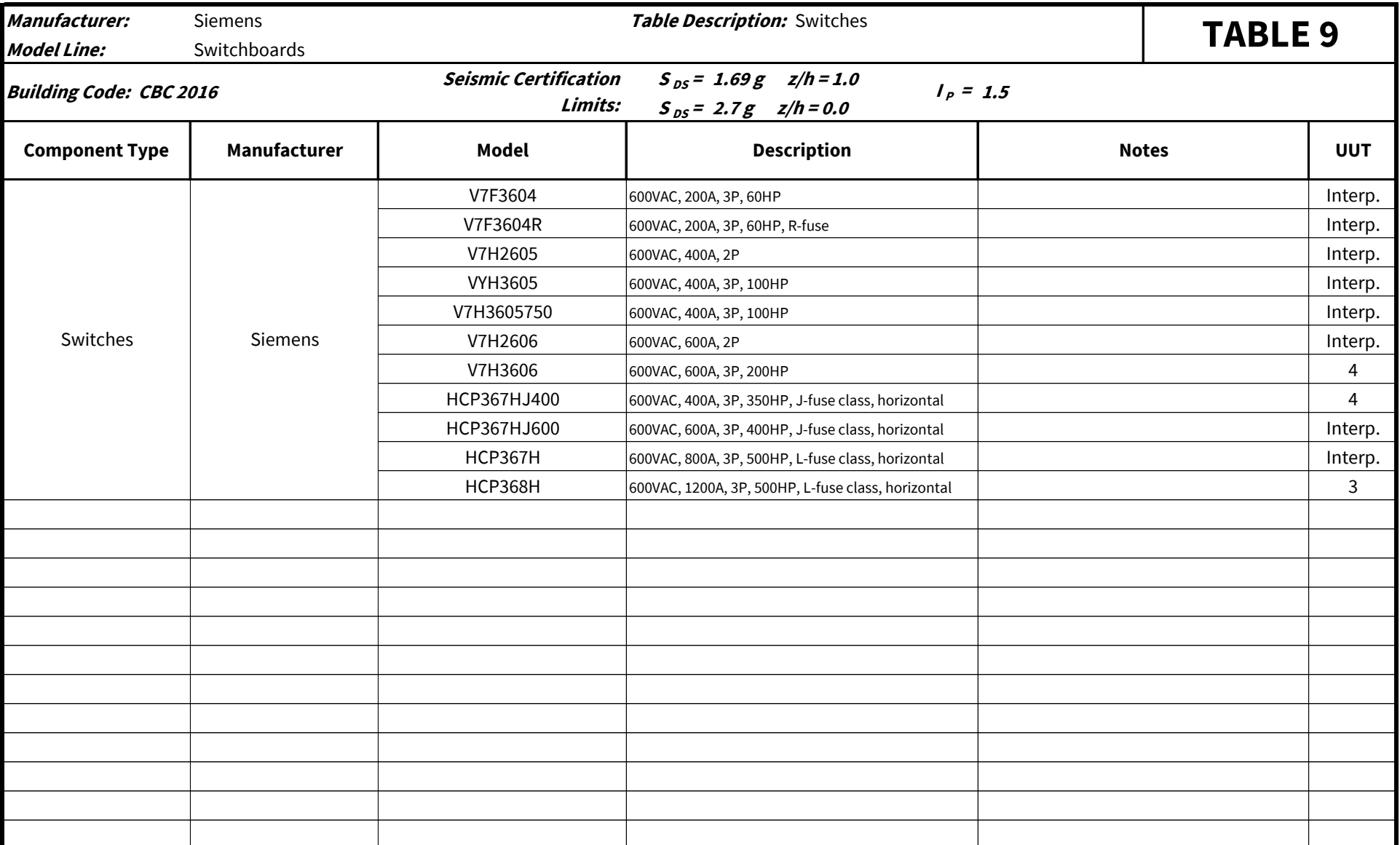
SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENT MATRIX

TRU PROJECT NO. 15026



Manufacturer: Siemens		Table Description: Switches			TABLE 9
Model Line: Switchboards					
Building Code: CBC 2016		Seismic Certification Limits:	$S_{DS} = 1.69 g$ $z/h = 1.0$ $S_{DS} = 2.7 g$ $z/h = 0.0$	$I_P = 1.5$	
Component Type	Manufacturer	Model	Description	Notes	UUT
Switches	Siemens	V7E2204	240VAC, 200A, 2P, 15HP		Interp.
		V7F3204	240VAC, 200A, 3P, 25HP		Interp.
		V7H2205	400A, 2P, 50HP (250VDC only)		Interp.
		V7H3205	240VAC, 400A, 2P, 50HP		Interp.
		V7H3205750	240VAC, 400A, 3P, 50HP		Interp.
		V7H2206	240VAC, 600A, 2P		Interp.
		V7H3206	240VAC, 600A, 3P, 75HP		Interp.
		V7E2611	600VAC, 30-30A, 2P, 3HP		Interp.
		V7E3611	600VAC, 30-30A, 3P, 7.5HP		Interp.
		V7E3611R	600VAC, 30-30A, 3P, 7.5HP, R-fuse		Interp.
		V7E2612	600VAC, 30-60A, 2P, 3-5HP		Interp.
		V7E3612	600VAC, 30-60A, 3P, 7.5-15HP		Interp.
		V7E2622	600VAC, 60-60A, 3P, 10HP		Interp.
		V7E3622	600VAC, 60-60A, 3P, 15HP		Interp.
		V7E3622R	600VAC, 60-60A, 3P, 15HP, R-fuse		Interp.
		V7E3623	600VAC, 60-100A, 3P, 15-30HP		Interp.
		V7E2633	600VAC, 100-100A, 2P, 15HP		Interp.
		V7E3633	600VAC, 100-100A, 3P, 30HP		Interp.
		V7E3633R	600VAC, 100-100A, 3P, 30HP, R-fuse		Interp.
		V7E2603	600VAC, 100A, 2P, 15HP		Interp.
		V7E3603	600VAC, 100A, 3P, 30HP		Interp.
		V7F3644	600VAC, 200-200A, 3P, 60HP		Interp.
		V7F2604	600VAC, 200A, 2P, 30HP		Interp.

TRU PROJECT NO. 15026



UNIT UNDER TEST (UUT) SUMMARY SHEET

TRU PROJECT NO. 15026



Manufacturer:	Siemens	UUT 1
Model Line:	Switchboards	
Model Number:	SB3 Service Section	
Serial Number:		

Product Construction Summary:
Standard frame with seismic upgrades & 16GA. carbon steel panels. (CG ht = 45")

Options/Subcomponent Summary:
Bus: 800A Al; **Main Breaker:** WLS2F308; **Surge Protection Device:** TPS3 C 06 10; **Meters:** 9510 / 9610.

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
702	28	38	90	23.3	12.9	19.2

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 2016	ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	2.13	0.85	
		3.20	0.0						

Test Mounting Details:



Rigid base mounted to the shake table with (4) 3/8" 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

TRU PROJECT NO. 15026



Manufacturer:	Siemens	UUT 3
Model Line:	Switchboards	
Model Number:	SB2 Distribution Section	
Serial Number:		

Product Construction Summary:
Heavy duty frame with seismic upgrades & 16GA. carbon steel panels. (CG ht = 45")

Options/Subcomponent Summary:
Bus: 1200A AL; **Switch:** HCP368H; **Circuit Breakers:** Sentron CND6 & SCND6, NG VL.

<i>UUT Properties</i>									
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)					
	Depth	Width	Height	Front-Back	Side-Side	Vertical			
743	20	38	90	3.9	5.6	31.1			
<i>UUT Highest Passed Seismic Run Information</i>									
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	1.69	1.0	1.5	2.70	2.03	1.80	0.72	
		2.70	0.0						

Test Mounting Details:



Rigid base mounted to the shake table with (4) 3/8" 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

TRU PROJECT NO. 15026



Manufacturer:	Siemens	UUT 4
Model Line:	Switchboards	
Model Number:	SB3 Service Section	
Serial Number:		

Product Construction Summary:
Standard frame with seismic upgrades & 16GA. carbon steel panels. (CG ht = 45")

Options/Subcomponent Summary:
Circuit Breakers: Siemens - JG / JXD2 / SJD6; **Switches:** Siemens - V7A2211 / V7E3611R / V7H3606 / HCP367HJ400.

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
820	20	38	90	5.8	5.6	>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	2.00	1.0	1.5	3.20	2.40	2.13	0.85	
		3.20	0.0						

Test Mounting Details:



Rigid base mounted to the shake table with (4) 3/8" grade 5 bolts.
Unit maintained structural integrity (except weather enclosure) 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. 15026



Manufacturer:	Siemens	UUT 6
Model Line:	Switchboards	
Model Number:	IPS Single Width Module	
Serial Number:		

Product Construction Summary:
Standard frame with seismic upgrades & 16GA. carbon steel panels. (CG ht = 43")

Options/Subcomponent Summary:
Transformer: Siemens - 3F3Y150CD16CCIPS.

UUT Properties										
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)						
	Depth	Width	Height	Front-Back	Side-Side	Vertical				
1,435	28	38	90	24.3	7.2	20.7				
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		2.00	1.0	1.5	3.20	2.40	2.13	0.85
				3.20	0.0					

Test Mounting Details:



Rigid base mounted to the shake table with (4) 1/2" 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

TRU PROJECT NO. 15026



Manufacturer:	Siemens	UUT 9
Model Line:	Switchboards	
Model Number:	IPS Single Width Module	
Serial Number:		

Product Construction Summary:
Standard frame with seismic upgrades & 16GA. carbon steel panels. (CG ht = 43")

Options/Subcomponent Summary:
Transformer: Siemens - 3F3Y015CD16CCIPS.

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
511	20	25	90	6.5	7.6	16.0

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 2016	ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	2.13	0.85	
		3.20	0.0						

Test Mounting Details:



Rigid base mounted to the shake table with (4) 3/8" 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

TRU PROJECT NO. 15026



Manufacturer:	Siemens	UUT 10
Model Line:	Switchboards	
Model Number:	SB3 Service Section (WC/WP)	
Serial Number:		

Product Construction Summary:
Heavy duty frame with seismic upgrades & 16GA. carbon steel panels. (CG ht = 47")

Options/Subcomponent Summary:
Weather proof enclosure, **Bus:** 4000A Al / 4000A Cu.

UUT Properties									
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)					
	Depth	Width	Height	Front-Back	Side-Side	Vertical			
1,408	38	52	90	7.4	6.6	>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	1.69	1.0	1.5	2.70	2.03	1.80	0.72
			2.70	0.0					

Test Mounting Details:



Rigid base mounted to the shake table with (4) 1/2" 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

TRU PROJECT NO. 15026



Manufacturer:	Siemens	UUT 11
Model Line:	Switchboards	
Model Number:	SB3 Service Section(WC/WP)	
Serial Number:		

Product Construction Summary:
Heavy duty frame with seismic upgrades & 16GA. carbon steel panels. One side panel removed for multiple section configuration. (CG ht = 47")

Options/Subcomponent Summary:
Bus: 4000A Al / 4000A Cu.

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
1,089	38	52	90	6.2	8.8	14.8

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 2016	ICC-ES AC156	1.69	1.0	1.5	2.70	2.03	1.80	0.72	
		2.70	0.0						

Test Mounting Details:



Rigid base mounted to the shake table with (4) 1/2" 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

TRU PROJECT NO. 15026



Manufacturer:	Siemens	UUT 12
Model Line:	Switchboards	
Model Number:	SB3 Service Section (WC/WP)	
Serial Number:		

Product Construction Summary:
Heavy duty frame with seismic upgrades & 16GA. carbon steel panels. Both side panels removed for multiple section mounting configuration. (CG ht = 47")

Options/Subcomponent Summary:
Bus: 4000A Al / 4000A Cu.

UUT Properties									
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)					
	Depth	Width	Height	Front-Back	Side-Side	Vertical			
1,027	38	52	90	4.3	8.9	15.0			
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 2016		ICC-ES AC156	1.69	1.0	1.5	2.70	2.03	1.80	0.72
			2.70	0.0					

Test Mounting Details:



Rigid base mounted to the shake table with (4) 1/2" 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

TRU PROJECT NO. 15026



Manufacturer:	Siemens	UUT 13
Model Line:	Switchboards	
Model Number:	SB3 Service Section (4000 A) Without Door	

Product Construction Summary:
Heavy duty frame with seismic upgrades & 16GA. carbon steel panels. Both side panels removed for multiple section mounting configuration. (CG ht = 45")

Options/Subcomponent Summary:
Breaker w/Options: WLC3D340ZYFCCERXB 4000A WL Breaker; 4000A Rating Plug; ETU776 Electronic trip unit; Bell alarm; Shunt trip; Undervoltage release; Motor cut-off switch; Power metering **Surge Protection Device:** 277/480V 3Ø, 4W, 500 kA per phase
Meters: PAC3200, PAC4200 **Bus:** 4000A Al / 4000A Cu.

UUT Properties									
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)					
	Depth	Width	Height	Front-Back	Side-Side	Vertical			
2,430	38	46	90	6.1	6.1	>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	1.69	1.0	1.5	2.70	2.03	1.80	0.72
			2.70	0.0					

Test Mounting Details:



Rigid base mounted to the shake table with (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.