



OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT
FACILITIES DEVELOPMENT DIVISION

APPLICATION FOR OSHPD SPECIAL SEISMIC
CERTIFICATION PREAPPROVAL (OSP)

OFFICE USE ONLY
APPLICATION #: OSP - 0560 - 10

OSHPD Special Seismic Certification Preapproval (OSP)

Type: [X] New [] Renewal

Manufacturer Information

Manufacturer: Schneider Electric

Manufacturer's Technical Representative: Jeff Gatscher

Mailing Address: 6700 Tower Circle Franklin, TN 37067 USA

Telephone: (615) 459-8466 Email: jeff.gatscher@schneider-electric.com

Product Information

Product Name: Premset Switchgear

Product Type: MV Metal Enclosed Switchgear

Product Model Number: ESB, D01N, D02N, G06, D06H, D06N, G12, D12H
(List all unique product identification numbers and/or part numbers)

General Description: 15 kV Metal Enclosed Switchgear, Compact Vacuum Circuit Breaker Switchgear with Shielded
Solid Insulation (2SIS) System, 600A and 1200A with front and rear connection.

Mounting Description: Rigid Base Mounted

Applicant Information

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

Contact Person: Andy Coughlin, SE

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

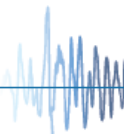
Telephone: (844) 878-0200 Email: acoughlin@structint.com

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: [Handwritten Signature] Date: 5/3/2018

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

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





**OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT
FACILITIES DEVELOPMENT DIVISION**

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 SE California License Number: S6082

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

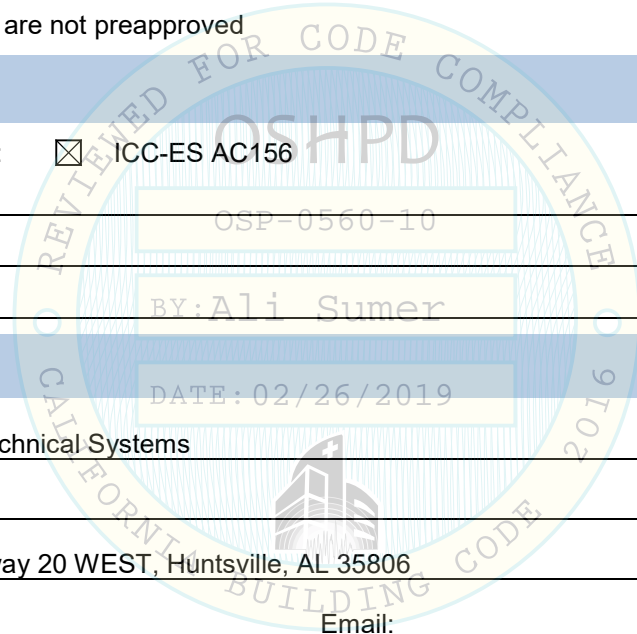
Telephone: (844) 878-0200 Email: acoughlin@structint.com

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): _____



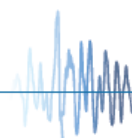
Testing Laboratory

Company Name: National Technical Systems

Contact Name: Mike Noblitt

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

Telephone: (844) 467-6414 Email: _____





OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT
FACILITIES DEVELOPMENT DIVISION

Seismic Parameters

Design in accordance with ASCE 7-10 Chapter 13: [X] Yes [] No

Design Basis of Equipment or Components (Fp/Wp) = 1.63 (SDS = 2.17, z/h = 1.0); 1.08 (SDS = 2.39, z/h = 0.0)

SDS (Design spectral response acceleration at short period, g) = 2.17 (z/h = 1.0); 2.39 (z/h = 0.0)

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

Rp (Equipment or component response modification factor) = 6.0

Omega_0 (System overstrength factor) = 2

Ip (Importance factor) = 1.5

z/h (Height factor ratio) = 1.0 (SDS = 2.17); 0.0 (SDS = 2.39)

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 [X] No

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

SDS (Design spectral response acceleration at short period, g) =

SD1 (Design spectral response acceleration at 1 second period, g) =

R (Response modification coefficient) = OSP-0560-10

Omega_0 (System overstrength factor) =

Cd (Deflection amplification factor) = BY: Ali Sumer

Ip (Importance factor) = 1.5

Height to Center of Gravity above base = DATE: 02/26/2019

Equipment or Component Natural Frequencies (Hz) =

Overall dimensions and weight (or range thereof) =

Tank(s) designed in accordance with ASME BPVC, 2015: [] Yes [X] No

List of Attachments Supporting Special Seismic Certification

[X] Test Report(s) [] Drawings [] Calculations [X] Manufacturer's Catalog

[X] Other(s) (Please Specify): See Attachment

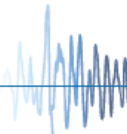
OSHPD Approval (For Office Use Only) - Approval Expires on December 31, 2022

Signature: [Signature] Date: February 26, 2019

Print Name: Ali Sumer Title: DSE

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

Condition of Approval (if applicable):



SPECIAL SEISMIC CERTIFICATION CERTIFIED COMPONENT MATRIX

1700706-CR-001 R0



Manufacturer: Schneider Electric						TABLE 1	
Model Line: Premset							
Certified Product Construction Summary: 14 Ga. Painted Carbon Steel Enclosure.							
Certified Options Summary: 600A - 1200A Copper or Aluminum main busbars, Copper or Aluminum riser busbars, Front or rear connection with top or bottom cable entry, Front access only or Rear access options, Rear cable assembly, 17.7" to 27.75" tall low voltage compartment, 10.2" base plinth, standard or additional depth doors. Ganged configuration only.							
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						<i>S_{DS}</i> = 2.17 g z/h=1.0 <i>S_{DS}</i> = 2.39 g z/h=0.0	<i>I_P</i> = 1.5
Model Line	Model	Dimensions (in)			Weight (lb)	Notes	UUT
		Depth	Width	Height			
Premset	ESB	60	14.75	96.75	973		Extrap.
	D01N	60	14.75	96.75	973		Extrap.
	D02N	60	14.75	96.75	973		Extrap.
	G06	60	14.75	96.75	973	UUT: Al main/riser busbars	3
	D06H	60	14.75	96.75	973		Interp.
	D06N	60	14.75	96.75	887	UUT: Al main/riser busbars	3
	G12	60	14.75	96.75	1066	UUT: Cu main/riser busbars	1
	D12H	58	29.5	96.75	1520	UUT: Cu main/riser busbars	1

SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENT MATRIX

1700706-CR-001 R0



Manufacturer: Schneider Electric Model Line: Premset		Table Description: Main Components			TABLE 2	
Building Code: CBC 2016		Seismic Certification Limits:			$S_{DS} = 2.17 g$ $z/h = 1.0$ $S_{DS} = 2.39 g$ $z/h = 0.0$	
Component Type	Manufacturer	Model	Description	Notes	UUT	
Breakers	Schneider Electric	AAV91761	Vacuum circuit breaker	UUT 1: Qty (2) for 1200 A	1,3	
Low-Power Voltage Transformers (LPVT)	Zelisko	03816686NO	12/28/75 kV		3	
		03816695NO	24/50/125 kV		1	
	Schneider Electric	P7MSULPVT01	Cable side voltage sensing for 600 A Unit		3	
		P7MSULPVT02	Cable side voltage sensing for 1200 A Unit		1	
Mechanism	Schneider Electric	CIT	Manual close/open		Extrap.	
		CI1	Closing with Hand Lever or motor & Opening with Push Button or trip coils		3	
		OCO	Stored energy type with Closing & Opening with Push Button or trip coils		1	
Motor Mechanism	Schneider Electric	P7M12001	24-30V DC		Extrap.	
		P7M12002	48-60V AC/DC		Extrap.	
		P7M12003	100-130V AC/DC		1,3	
		P7M12004	200-250V AC/DC		3	
Tank	Schneider Electric	ESB- P7MESBC10	Breaker/switch enclosure		Extrap.	
		D01N- P7MD0XNC10	Breaker/switch enclosure		Extrap.	
		D02N- P7MD0XNC10	Breaker/switch enclosure		Extrap.	
		D06H- P7MD06HC10	Breaker/switch enclosure		Extrap.	
		D06N- P7MD0XNC10	Breaker/switch enclosure		3	
		D12H- P7MD06HC10	Breaker/switch enclosure		1	
Tank Camera	Schneider Electric	NHA64038	Tank camera to confirm switch position		1,3	
Cable Test Device	Schneider Electric	P7MCTESTID	600A		3	
		P7MCTESTID1250A	1200A		1	

SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENT MATRIX

1700706-CR-001 R0



Manufacturer: Schneider Electric Model Line: Premset		Table Description: Low Voltage Components			TABLE 3	
Building Code: CBC 2016		Seismic Certification Limits:				
		$S_{DS} = 2.17 g \quad z/h = 1.0$ $S_{DS} = 2.39 g \quad z/h = 0.0$			$I_p = 1.5$	
Component Type	Manufacturer	Model	Description	Notes	UUT	
Relays	Schneider Electric	VIP Protection Relay	Protection Relay		3	
		MiCOM	24-220 VDC, 110-230 VAC Protection Relay		3	
		VD23	Voltage Detector Relay		3	
		Sepam	24-250 VDC, 110/240 VAC Protection Relay		1,3	
Ammeter	Schneider Electric	AMP 21D	Ammeter, 3-630 A		1	
Fault Passage Indicator	Schneider Electric	Easergy Flair	Fault passage indicator, 2-4 digit display		3	
Controllers	Schneider Electric	SC100	Intelligent Controller, 24-60 VDC		1,3	
		SC-MI	Local control device, on/off, remote local		1	
Transfer Systems	Schneider Electric	ATS100	Automatic transfer system		3	
Power Meters	Schneider Electric	PM5000	Power Meter		3	
		PM8000	Power Meter		Interp.	
		ION7650	Power Meter		1	
Current Transformers	Schneider Electric	P7MARU2	ARU2 type, For protection	mounted at bottom tank	1	
		P7MARU1	ARU2 type, For metering	mounted at bushings	1,3	
		ARC6	ARU6 type, For metering	mounted at cables	3	
Voltage Presence Indicator	Schneider Electric	VPI62403	Voltage presence indicator (3kV)		3	
		VPI62404	Voltage presence indicator(6.6kV)		Interp.	
		VPI62406	Voltage presence indicator (15kV)		1	
Live Cable Interlock	Schneider Electric	P7MLCIMEXX	Locking Assy VAC/VDC		1,3	
		P7M12020	Electronic Device ESL100A 24-48 VDC		3	
		P7M12021	Electronic Device ESL100E 110-250 VAC/DC		1	
Sensor	Schneider Electric	Easergy TH110/CL110	Wireless thermal and humidity sensor		1	
Power Supply	Schneider Electric	PS100	Power Supply		1	

**SPECIAL SEISMIC CERTIFICATION
CERTIFIED SUBCOMPONENT MATRIX**

1700706-CR-001 R0



Manufacturer: Schneider Electric	Table Description: Extension boxes	TABLE 4
Model Line: Premset		

Building Code: CBC 2016	Seismic Certification Limits:	$S_{DS} = 2.17g$ $z/h = 1.0$ $S_{DS} = 2.39g$ $z/h = 0.0$	$I_p = 1.5$
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Component Type	Manufacturer	Model	Description	Notes	UUT
Cable Compartment Box	Schneider Electric	290mm deep	Door extension box		Extrap.
		450mm deep	Door extension box		1
		500mm deep	Door extension box		3
Low Voltage Box	Schneider Electric	17.72" Low Voltage Box	LV Box C		Extrap.
		20.12" Low Voltage Box	LV Box C with top control cable duct		Extrap.
		25.35" Low Voltage Box	LV Box Cmax		1
		27.75" Low Voltage Box	LV Box Cmax with top control cable duct		3
Rear Cable Extension	Schneider Electric	Rear cable extension	Rear cable extension box		1,3
Plinth	Schneider Electric	Single wide	14.75" wide plinth		1, 3
		Double wide	29.5" wide plinth		1

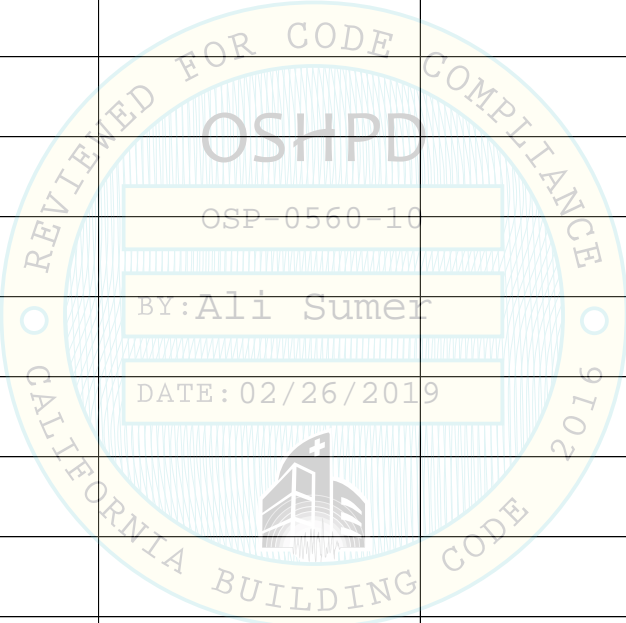
UNIT UNDER TEST (UUT) SUMMARY SHEET

1700706-CR-001 R0



Manufacturer: Schneider Electric
Model Line: Premset

UUT	Unit Description	Report Number	Testing Laboratory	S _{DS} (g)	z/h	I _p
1	Premset 15kV MV Switchgear Model Configuration: D12H & G12	PR061026-TR-17 (UUT1), and Premset RRS vs TRS Plots.pdf	NTS-Huntsville	2.19 2.46	1 0	1.5
3	Premset 15kV MV Switchgear Model Configuration: D06N & G06	PR069325-TR-17 (UUT1), and Premset RRS vs TRS Plots.pdf	NTS-Huntsville	2.25 2.39	1 0	1.5



Notes:

UNIT UNDER TEST (UUT) SUMMARY SHEET



1700706-CR-001 R0

Manufacturer: Schneider Electric	UUT 1
Model Line: Premset	
Model Number: D12H & G12	
Serial Number: ICFA41200LPHB/LDI/PS	

Product Construction Summary:
14 Ga. Painted Carbon Steel Enclosure.

Options/Subcomponent Summary:
Breakers (AAV91761), Low-Power Voltage Transformers (Zelisko 03816686No and Schneider Electric P7MSULPVT02), Mechanism(OCO), Motor Mechanism(PZM12003), Tank(D12H-P7MD06HC10), Tank Camera(NHA64038), Cable Test Device (P7MCTESTID1250A), Relays(Sepam), Ammeter(AMP 21D), Controllers(SC100 and SC-MI), Power Meters(ION7650), Current Transformers(P7MARU2 and PMARU1), Voltage Presence Indicator(VP162404 and VP162406), Live Cable Interlock(P7M12020 and P7M12021), Sensor(Easergy TH110/CL110), Power Supply(PS100), Cable Compartment Box(450MM), Low Voltage Box(25.35"), Rear Cable Extension, Plinth(14.75" and 29.5")

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
2586	60	44.25	99.5	13.5	7.2	13.0

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	2.19	1.0	1.5	3.5	2.63	1.64	0.66	
		2.46	0.0	1.5					

Test Mounting Details:



Twelve (12) 1/2"-13 Grade 5 Bolts were used to mount the UUT to the test frame.
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



1700706-CR-001 R0

Manufacturer: Schneider Electric	UUT 3
Model Line: Premset	
Model Number: D06N and GO6	
Serial Number: 39555468-001	

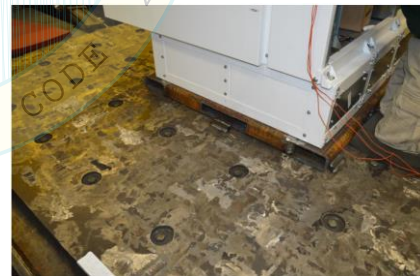
Product Construction Summary:
14 Ga. Painted Carbon Steel Enclosure.

Options/Subcomponent Summary:
Breaker(AAV91761), Low-Power Voltage Transformer(Schneider Electric P7MSULPVT01 and Zelisko 03816686NO), Mechanism(CI1), Motor Mechanism(P7M12003 and P7M12004), Tank(D06N-P7MD0XNC10), Tank Camera(NHA64038), Cable Test Device(P7MCTESTID), Relays(VIP Protection Relay, MiCOM, VD23, and Sepam), Fault Passage Indicator(Easergy Flair), Controllers(Sc100), Transfer System(ATS100), Power Meter(PM5000), Current Transformer(P7MARU1 and ARC6), Voltage Presence Indicator(VPI62403), Live Cable Interlock(P7MLCIMEXX and P7M12020), Cable Compartment Box(500mm), Low Voltage Box(27.75"), Rear Cable Extension, Plinth(14.75")

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
1860	62.54	29.5	99.5	14.0	6.5	>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 2016	ICC-ES AC156	2.25	1.0	1.5	3.6	2.7	1.6	0.64	
		2.39	0.0	1.5					

Test Mounting Details:



Nine (9) 1/2"-13 Grade 5 Bolts were used to mount the UUT to the test frame.
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.
Contents were included in testing per operating conditions.