



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

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

OFFICE USE ONLY

**APPLICATION #: OSP-0538**

**HCAI Special Seismic Certification Preapproval (OSP)**

Type:  New  Renewal

**Manufacturer Information**

Manufacturer: Siemens Industry, Inc.

Manufacturer's Technical Representative: Megan Rahn

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

Telephone: (817) 652-6578

Email: megan.rahn@siemens.com

**Product Information**

Product Name: Switchgear/Switchboards

Product Type: Switchboards

Product Model Number: 800A to 5000A Main Bus Sections – See attachment for identification number

General Description: FCLV is a front connected low voltage metalclad switchgear and Flex switchboard that provides low voltage circuit protection.

Mounting Description: Rigid, Floor/Wall Mounted

Tested Seismic Enhancements: None

**Applicant Information**

Applicant Company Name: W.E. Gundy & Associates, Inc.

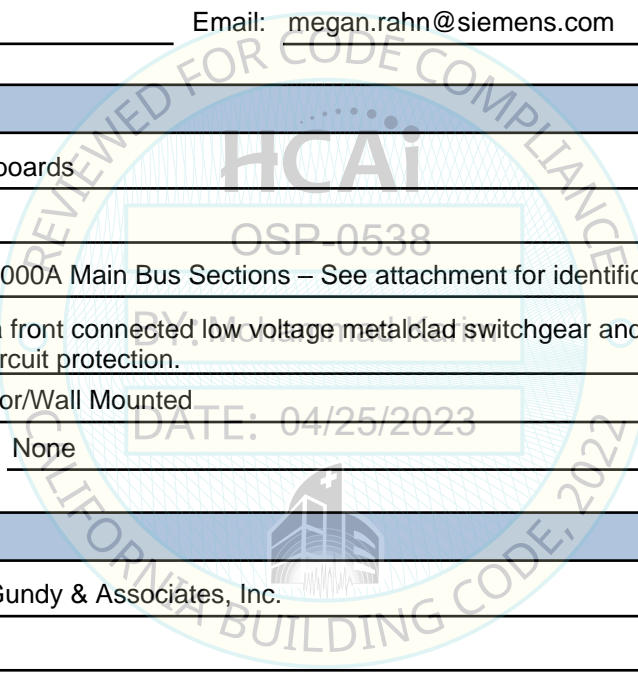
Contact Person: Travis Soppe

Mailing Address: 1199 Shoreline Dr. Suite 310, Boise, ID 83702

Telephone: (208) 342-5989

Email: tsoppe@wegai.com

Title: President





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

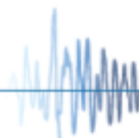
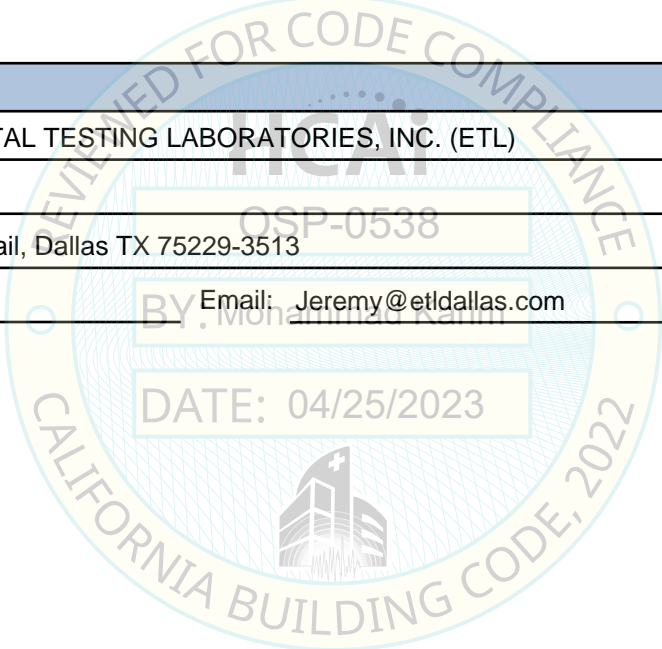
Company Name: W.E. GUNDY & ASSOCIATES INC.  
Name: Travis Soppe California License Number: S6115  
Mailing Address: P.O. Box 9121, Boise, ID 83707  
Telephone: (208) 342-5989 Email: tsoppe@wegai.com

**Certification Method**

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

**Testing Laboratory**

Company Name: ENVIRONMENTAL TESTING LABORATORIES, INC. (ETL)  
Contact Person: Jeremy Lange  
Mailing Address: 11034 Indian Trail, Dallas TX 75229-3513  
Telephone: (972) 247-9657 Email: Jeremy@etldallas.com





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**Seismic Parameters**

Design Basis of Equipment or Components ( $F_p/W_p$ ) = 1.50 for SDS = 2.0 at z/h = 1 and 1.13 for SDS = 2.5 at z/h = 0

SDS (Design spectral response acceleration at short period, g) = 2.00 (z/h = 1.0) and 2.50 (z/h = 0.0)

$a_p$  (Amplification factor) = 2.5

$R_p$  (Response modification factor) = 6.0

$\Omega_0$  (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 04/25/2029**

Date: 4/25/2023

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: 04/25/2023

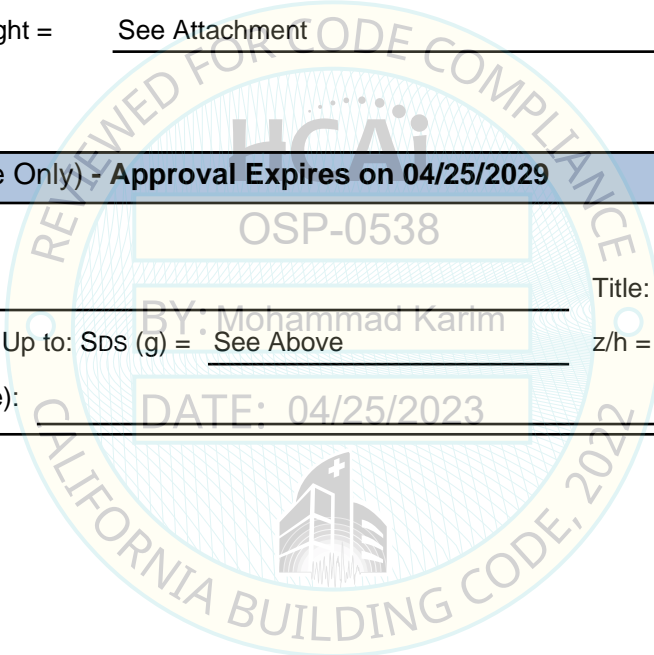



TABLE 1	SIEMENS FRONT-CONNECTED LV SWITCHGEAR FLEX SWITCHBOARD CERTIFIED PRODUCT LINE MATRIX							 W.E. GUNDY & ASSOCIATES, INC. STRUCTURAL & EARTHQUAKE ENGINEERING
	ID Number	Frame Size <sup>1</sup>	Vertical / Main Bus Amper	Enclosure Width (in.) <sup>2</sup>	Enclosure Depth (in.)	Enclosure Height (in.)	Max CG (in)	
<b>Combined Floor / Wall Mount Configurations</b>								
<b>FCLV-3P-2-FD</b>	<b>FS2</b>	<b>3200A</b>	<b>22</b>	<b>39</b>	<b>92</b>	<b>50</b>	<b>1190</b>	<b>UUT-1b</b>
<b>FCLV-3P-3-FD</b>	<b>FS3</b>	<b>4000A</b>	<b>40</b>	<b>39</b>	<b>92</b>	<b>46</b>	<b>1370</b>	<b>UUT-2c</b>
<b>FCLV-3P-3-FD</b>	<b>FS3</b>	<b>4000A</b>	<b>32</b>	<b>39</b>	<b>92</b>	<b>52</b>	<b>1380</b>	<b>UUT-2a</b>
<b>FCLV-3P-3-1H</b>	<b>FS3</b>	<b>4000A</b>	<b>32</b>	<b>39</b>	<b>92</b>	<b>54</b>	<b>1695</b>	<b>UUT-2b</b>
FCLV-3P-2-FD	FS2	800A-3200A	22-40	39	92	54	1500	Interpolated
FCLV-3P-2-1H	FS2	800A-3200A	22-40	39	92	54	1750	Interpolated
FCLV-3P-2-2H	FS2	1600A-3200A	22-40	39	92	54	1750	Interpolated
FCLV-3P-2-4H	FS2	1600A-3200A	22-40	39	92	54	1750	Interpolated
FCLV-3P-3-2H	FS3	1600A-3200A	22-40	39	92	54	1800	Interpolated
<b>FCLV-3P-3-FD</b>	<b>FS3</b>	<b>5000A</b>	<b>32</b>	<b>39</b>	<b>92</b>	<b>50</b>	<b>1900</b>	<b>UUT-3a</b>
FCLV-3P-3-FD	FS3	3200A-5000A	22-40	39	92	54	2000	Interpolated
<b>FCLV-3P-2-4H</b>	<b>FS2</b>	<b>3200A</b>	<b>22</b>	<b>39</b>	<b>92</b>	<b>46</b>	<b>2000</b>	<b>UUT-1a</b>
FCLV-3P-2-3H	FS2	1600A-3200A	22-40	39	92	54	2100	Interpolated
FCLV-3P-3-3H	FS3	3200A-5000A	22-40	39	92	54	2200	Interpolated
FCLV-3P-3-4H	FS3	3200A-5000A	22-40	39	92	54	2200	Interpolated
FCLV-3P-3-1H	FS3	3200A-5000A	32-40	39	92	54	2230	Interpolated
FCLV-3P-3-4H	FS3	3200A-5000A	32-40	39	92	54	2230	Interpolated
<b>FCLV-3P-3-1H</b>	<b>FS3</b>	<b>5000A</b>	<b>32</b>	<b>39</b>	<b>92</b>	<b>54</b>	<b>2230</b>	<b>UUT-3b</b>
<b>General Notes:</b>								
<sup>1</sup> Units are not certified for individual installation; a minimum of two connected (one main breaker and one feeder section) units required. Additional main breaker or feeder sections can be added to the lineup as done on UUT-2. All units are constructed with indoor (NEMA 1) enclosures.								
<sup>2</sup> Breaker sections (1H/2H/3H/4H) come in widths of 22" and 32" and the connected feeder sections (FD) come in widths of 22", 30", 32", or 40".								

**SIEMENS FRONT-CONNECTED LV SWITCHGEAR  
FLEX SWITCHBOARD CERTIFIED SUBCOMPONENT MATRIX**



ID Number	Manufacturer	Main Bus Ampere	Frame Size	Breaker Type	Width (in.)	Depth (in.)	Height (in.)	Component WT (lbs) Min-Max	Representative UUT
<b>Table 2: Circuit Breaker UL 489</b>									
S2D308	Siemens	800A	2	D	22.0"	22.5"	19.5"	192	Extrapolated
L2D308	Siemens	800A	2	D	22.0"	22.5"	19.5"	192	UUT-1
C2D308	Siemens	800A	2	D	22.0"	22.5"	19.5"	259	Interpolated
S2D312	Siemens	1200A	2	D	22.0"	22.5"	19.5"	192	Interpolated
L2D312	Siemens	1200A	2	D	22.0"	22.5"	19.5"	192	Interpolated
C2D312	Siemens	1200A	2	D	22.0"	22.5"	19.5"	252	Interpolated
S2D316	Siemens	1600A	2	D	22.0"	22.5"	19.5"	192	Interpolated
L2D316	Siemens	1600A	2	D	22.0"	22.5"	19.5"	192	Interpolated
C2D316	Siemens	1600A	2	D	22.0"	22.5"	19.5"	259	Interpolated
S2D320	Siemens	2000A	2	D	22.0"	22.5"	19.5"	216	Interpolated
L2D320	Siemens	2000A	2	D	22.0"	22.5"	19.5"	216	Interpolated
C2D320	Siemens	2000A	2	D	22.0"	22.5"	19.5"	259	UUT-1
L2D325	Siemens	2500A	2	D	22.0"	22.5"	19.5"	216	Interpolated
C2D325	Siemens	2500A	2	D	22.0"	22.5"	19.5"	252	Interpolated
L2D330	Siemens	3000A	2	D	22.0"	15.0"	19.5"	216	Interpolated
C2D330	Siemens	3000A	2	D	22.0"	15.0"	19.5"	252	Interpolated
L3D340	Siemens	4000A	3	D	32.0"	22.5"	19.5"	481	UUT-2
C3D340	Siemens	4000A	3	D	32.0"	22.5"	19.5"	481	Extrapolated
L3D350	Siemens	5000A	3	D	32.0"	22.5"	19.5"	481	Extrapolated
C3D350	Siemens	5000A	3	D	32.0"	22.5"	19.5"	481	Extrapolated

**General Notes:**

All drawout breaker weights include the weight of the cradle.

**SIEMENS FRONT-CONNECTED LV SWITCHGEAR  
FLEX SWITCHBOARD CERTIFIED SUBCOMPONENT MATRIX**



**Table 3: Circuit Breaker UL 1066**

N2A308	Siemens	800A	2	D	22.0"	22.5"	19.5"	192	Extrapolated
S2A308	Siemens	800A	2	D	22.0"	22.5"	19.5"	192	Extrapolated
H2A308	Siemens	800A	2	D	22.0"	22.5"	19.5"	192	Extrapolated
L2A308	Siemens	800A	2	D	22.0"	22.5"	19.5"	192	UUT1
F2A316	Siemens	1600A	2	D	22.0"	22.5"	19.5"	192	Interpolated
S2A316	Siemens	1600A	2	D	22.0"	22.5"	19.5"	192	Interpolated
H2A316	Siemens	1600A	2	D	22.0"	22.5"	19.5"	192	Interpolated
L2A316	Siemens	1600A	2	D	22.0"	22.5"	19.5"	192	Interpolated
S2A320	Siemens	2000A	2	D	22.0"	22.5"	19.5"	248	Interpolated
H2A320	Siemens	2000A	2	D	22.0"	22.5"	19.5"	248	Interpolated
L2A320	Siemens	2000A	2	D	22.0"	22.5"	19.5"	248	UUT-1
S2A332	Siemens	3200A	2	D	22.0"	15.0"	19.5"	248	Interpolated
H2A332	Siemens	3200A	2	D	22.0"	15.0"	19.5"	248	Interpolated
L2A332	Siemens	3200A	2	D	22.0"	15.0"	19.5"	248	Interpolated
M3A332	Siemens	3200A	3	D	32.0"	22.5"	19.5"	248	Interpolated
H3A340	Siemens	4000A	3	D	32.0"	22.5"	19.5"	463	Interpolated
L3A340	Siemens	4000A	3	D	32.0"	22.5"	19.5"	463	Interpolated
M3A340	Siemens	4000A	3	D	32.0"	22.5"	19.5"	463	Interpolated
H3A350	Siemens	5000A	3	D	32.0"	22.5"	19.5"	463	Interpolated
L3A350	Siemens	5000A	3	D	32.0"	22.5"	19.5"	463	UUT-3
M3A350	Siemens	5000A	3	D	32.0"	22.5"	19.5"	463	Extrapolated

**General Notes:**

All drawout breaker weights include the weight of the cradle.

**SIEMENS FRONT-CONNECTED LV SWITCHGEAR  
FLEX SWITCHBOARD CERTIFIED SUBCOMPONENT MATRIX**



Subcomponent ID	Manufacturer	Description	Width (in) min-max	Depth (in)	Height (in)	Weight (lbs)	Representative
<b>Table 4: Surge Protection Device</b>							
TPS3A0610	Siemens	120/240V, 1 Ph 3 W, 100 kA	11.5"	4.5"	10.75"	6.8	Extrapolated
TPS3B0610	Siemens	120/240V, 3 Ph, 4W, 100 kA	11.5"	4.5"	10.75"	6.8	Extrapolated
TPS3C0610	Siemens	120/208V, 3 Ph, 4W, 100 kA	11.5"	4.5"	10.75"	6.8	Extrapolated
TPS3D0610	Siemens	240V, 3Ph, 100 kA	11.5"	4.5"	10.75"	6.8	UUT-2
TPS3E0610	Siemens	277/480V, 3 Ph, 4W, 100 kA	11.5"	4.5"	10.75"	6.8	Interpolated
TPS3F0610	Siemens	480V, 3Ph, 100 kA	11.5"	4.5"	10.75"	6.8	Interpolated
TPS3K0610	Siemens	380/220V, 3 Ph, 4W, 100 kA	11.5"	4.5"	10.75"	6.8	Interpolated
TPS3S0610	Siemens	400/230V, 3 Ph, 4W, 100 kA	11.5"	4.5"	10.75"	6.8	Interpolated
TPS3G0610	Siemens	600V, 3 Ph, 100 kA	11.5"	4.5"	10.75"	6.8	Interpolated
TPS3G0615	Siemens	600V, 3 Ph, 150 kA	11.5"	4.5"	10.75"	6.8	Interpolated
TPS3G0620	Siemens	600V, 3 Ph, 200 kA	11.5"	4.5"	10.75"	6.8	Interpolated
TPS3G0625	Siemens	600V, 3 Ph, 250 kA	11.5"	4.5"	10.75"	6.8	Interpolated
TPS3L0610	Siemens	600Y/347V, 3 Ph, 4W, 100 kA	11.5"	4.5"	10.75"	6.8	Interpolated
TPS3A0650	Siemens	120/240V, 3 Ph, 4W, 500 kA	11.5"	4.5"	10.75"	9.8	Interpolated
TPS3B0650	Siemens	120/240V, 3 Ph, 4W, 500 kA	11.5"	4.5"	10.75"	9.8	Interpolated
TPS3C0650	Siemens	120/208V, 3 Ph, 4W, 500 kA	11.5"	4.5"	10.75"	9.8	Interpolated
TPS3D0650	Siemens	240V, 3Ph, 500 kA	11.5"	4.5"	10.75"	9.8	Interpolated
TPS3E0650	Siemens	277/480V, 3 Ph, 4W, 500 kA	11.5"	4.5"	10.75"	9.8	UUT-3
TPS3F0650	Siemens	480V, 3Ph, 500 kA	11.5"	4.5"	10.75"	9.8	Extrapolated
TPS3K0650	Siemens	380/220V, 3 Ph, 4W, 500 kA	11.5"	4.5"	10.75"	9.8	Extrapolated
TPS3S0650	Siemens	400/230V, 3 Ph, 4W, 500 kA	11.5"	4.5"	10.75"	9.8	Extrapolated
TPS3L0650	Siemens	600Y/347V, 3 Ph, 4W, 500 kA	11.5"	4.5"	10.75"	9.8	Extrapolated
TPS3A0615-40	Siemens	120/240V, 1 Ph 3 W, 150 - 400 kA	11.5"	4.5"	10.75"	6.8,9.8	Extrapolated

## SIEMENS FRONT-CONNECTED LV SWITCHGEAR FLEX SWITCHBOARD CERTIFIED SUBCOMPONENT MATRIX



**Table 4 con'd: Surge Protection Device**

TPS3B0615-40	Siemens	120/240V, 3 Ph, 4W, 150 - 400 kA	11.5"	4.5"	10.75"	6.8,9.8	Extrapolated
TPS3C0615-40	Siemens	120/208V, 3 Ph, 4W, 150 - 400 kA	11.5"	4.5"	10.75"	6.8,9.8	Extrapolated
TPS3D0615-40	Siemens	240V, 3Ph, 150 - 400 kA	11.5"	4.5"	10.75"	6.8,9.8	Extrapolated
TPS3E0615-40	Siemens	277/480V, 3 Ph, 4W, 150 - 400 kA	11.5"	4.5"	10.75"	6.8,9.8	Extrapolated
TPS3F0615-40	Siemens	480V, 3Ph, 150 - 400 kA	11.5"	4.5"	10.75"	6.8,9.8	Extrapolated
TPS3K0615-40	Siemens	380/220V, 3 Ph, 4W, 150 - 400 kA	11.5"	4.5"	10.75"	6.8,9.8	Extrapolated
TPS3S0615-40	Siemens	400/230V, 3 Ph, 4W, 150 - 400 kA	11.5"	4.5"	10.75"	6.8,9.8	Extrapolated
TPS3L0615-40	Siemens	600Y/347V, 3 Ph, 4W, 150-400 kA	11.5"	4.5"	10.75"	6.8,9.8	Extrapolated

**Table 5: Current Transformers**

WLG8005MCT2	Siemens	3P587-801 800:5	15.9"	2.0"	6.8"	20	UUT-1
WLG12005MCT2	Siemens	3P587-122 1200:5	15.9"	2.0"	6.8"	20	Interpolated
WLG16005MCT2	Siemens	3P587-162 1600:5	15.9"	2.0"	6.8"	20	Interpolated
WLG20005MCT2	Siemens	3P587-202 2000:5	15.9"	2.0"	6.8"	20	Interpolated
WLG25005MCT2	Siemens	3P587-252 2500:5	15.9"	2.0"	6.8"	20	Interpolated
WLG32005MCT2	Siemens	3P587-322 3200:5	15.9"	2.0"	6.8"	20	Interpolated
WLG32005MCT3	Siemens	3200:5	25.5"	2.0"	6.8"	33	Interpolated
WLG40005MCT3	Siemens	4000:5	25.5"	2.0"	6.8"	33	Interpolated
WLG50005MCT3	Siemens	5000:5	25.5"	2.0"	6.8"	33	UUT-3
WLGMDGFCT2	Siemens	4W MDGF 1200:1 FS2	15.9"	2.0"	6.8"	20	Interpolated
WLGMDGFCT3	Siemens	4W MDGF 1200:1 FS3	25.5"	2.0"	6.8"	33	Interpolated
WLGNDMGCT23	Siemens	4W MDGF 1200:1 FS2/3	10.0"	2.0"	5.5"	7.5	Interpolated
WLG800NMCT23	Siemens	800:5	10.0"	2.0"	5.5"	7.5	Interpolated
WLG1200NMCT23	Siemens	1200:5	10.0"	2.0"	5.5"	7.5	Interpolated
WLG1600NMCT23	Siemens	1600:5	10.0"	2.0"	5.5"	7.5	Interpolated
WLG2000NMCT23	Siemens	2000:5	10.0"	2.0"	5.5"	7.5	Interpolated



**SIEMENS FRONT-CONNECTED LV SWITCHGEAR  
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**Table 5 con'd: Current Transformers**

WLG2500NMCT23	Siemens	2500:5	10.0"	2.0"	5.5"	7.5	Interpolated
WLG3000NMCT23	Siemens	3000:5	10.0"	2.0"	5.5"	7.5	Interpolated
WLG3200NMCT23	Siemens	3200:5	10.0"	2.0"	5.5"	7.5	Interpolated
WLG4000NMCT23	Siemens	4000:5	10.0"	2.0"	5.5"	7.5	UUT-3
WLG5000NMCT23	Siemens	5000:5	10.0"	2.0"	5.5"	7.5	UUT-2
Model 19	ITI	50-400Hz, 0.6kV, BIL 10kV	6.0"	6.0"	2.9"	3	Interpolated
Model 125	ITI	50-400Hz, 0.6kV, BIL 10kV	8.5"	8.5"	4.1"	3	Interpolated
Model 126	ITI	50-400Hz, 0.6kV, BIL 10kV	10.5"	10.5"	4.4"	5.5	Interpolated
Model 135	ITI	50-400Hz, 0.6kV, BIL 10kV	9.2"	9.2"	5.8"	18	UUT-2
Model 137	ITI	50-400Hz, 0.6kV, BIL 10kV	9.9"	9.9"	7.8"	50	Interpolated
Model 142	ITI	50-400Hz, 0.6kV, BIL 10kV	11.1"	11.5"	5.8"	31	UUT-2

**Table 6: Voltage Transformers**

Model 450	Phasetronics (TTL)	60Hz, 600V, 10kV Bill, 750VA	6"	6.5"	6"	25	UUT-1
Model 456	Phasetronics (TTL)	60Hz, 600V, 10kV Bill, 500VA	6"	6.1"	6.5"	18.5	Interpolated
Model 460	Phasetronics (TTL)	60Hz, 600V, 10kV Bill, 150VA	4.5"	3.5"	4.6"	7.75	Interpolated
Model 467	Phasetronics (TTL)	60Hz, 600V, 10kV Bill, 40VA	3.5"	3.8"	2.9"	2.5	Interpolated
Model 468	Phasetronics (TTL)	60Hz, 600V, 10kV Bill, 75VA	3.6"	4"	2.8"	4	UUT-1

**Table 7: Control Power Transformers**

MT0500M	Siemens	500VA,240/480-120/24	5.7"	5.3"	5.9"	19	Extrapolated
MT1000M	Siemens	1000VA 240/480-120/240	6.6"	7"	6.4"	30	UUT-2
MT2000M	Siemens	2000VA,240/480-120/240	6.3"	7"	8.2"	38	Interpolated
MT3000M	Siemens	3000VA,240/480-120/240	8.7"	9"	7.1"	89	Interpolated
MT5000M	Siemens	5000VA,240/480-120/240	8.7"	9"	8.6"	89	UUT-2

**Table 8: Human Machine Interface (HMI)**

6AV66461AD220AX0	Siemens	SIMATIC ITC2200	18"	15"	3"	15	UUT-3, UUT-2
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**SIEMENS FRONT-CONNECTED LV SWITCHGEAR  
FLEX SWITCHBOARD CERTIFIED SUBCOMPONENT MATRIX**

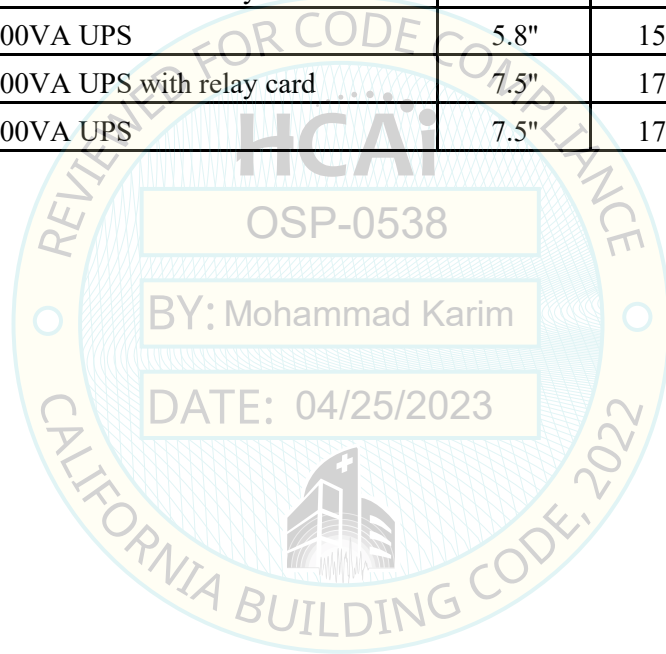


**Table 9: High Resistance Ground**

SPL48YK0000-NQ	Post Glover	480V WYE w/o Ethernet	25"	40"	13"	65	UUT-2
SPL48YK0000-NQ	Post Glover	480V Delta w/o Ethernet	25"	32"	13"	65	UUT-2

**Table 10: UPS**

CPE1000RC	Minuteman	1000VA UPS with relay card	5.8"	15.8"	8.78"	34	UUT-1
CPE1000	Minuteman	1000VA UPS	5.8"	15.8"	8.78"	34	Interpolated
CPE3000RC	Minuteman	3000VA UPS with relay card	7.5"	17.8"	14.4"	79	UUT-3
CPE3000	Minuteman	3000VA UPS	7.5"	17.8"	14.4"	79	Extrapolated



**UUT-1a**

**UNIT UNDER TEST (UUT)  
SUMMARY SHEET**



**Mounting Details:** Combined Floor/Wall mounted with 4 - 1/2" diameter grade 5 bolts (2 wall rear and 2 floor front locations) with Siemens seismic kits 12-F-9050-01 and 12-F9051-03 (1/2" thick oversized plate washers at all bolt locations).



**Manufacturer:** Siemens Industry, Inc.

**Product Line:** Low Voltage Switchgear

**Identification Number:** FCLV-3P-2-4H

**Report Number:** 1018-166

**UUT Function:** FCLV Switchgear provides low voltage circuit protection.

**UUT Description:** 4 High breaker section, NEMA1 carbon steel enclosure, 3200A main bus.

**UUT Component Description:** NEMA1 carbon steel enclosure, 3200A copper bus, (2) UL 489 circuit breakers, (2) UL 1066 circuit breakers, (1) current transformer, (2) voltage transformers, and (1) UPS.

**UUT PROPERTIES**

Weight (lb)	Dimensions (inches)				Natural Frequency (Hz)		
	Center of Gravity	Width	Depth	Height	FB	SS	V
2,000	46	22.0	39.0	92.0	na	na	na

**SEISMIC TEST PARAMETERS**

Test Criteria	S <sub>DS</sub> (g)	z / h	I <sub>p</sub>	A <sub>FLX-H</sub>	A <sub>RIG-H</sub>	A <sub>FLX-V</sub>	A <sub>RIG-V</sub>
CBC 2022 / ICC-ES-AC156	2.00	1	1.5	3.2g	2.4g	-	-
	2.50	0	1.5	-	-	1.67g	0.67g

Note: The unit was full of contents during testing and remained functional before and after the ICC-ES AC156 test. The unit maintained structural integrity during and after the ICC-ES AC156 Test.

**UUT-1b**

**UNIT UNDER TEST (UUT)  
SUMMARY SHEET**



**Mounting Details:** Combined Floor/Wall mounted with 4 - 1/2" diameter grade 5 bolts (2 wall rear and 2 floor front locations) with Siemens seismic kits 12-F-9050-01 and 12-F9051-03 (1/2" thick oversized plate washers at all bolt locations).



**Manufacturer:** Siemens Industry, Inc.

**Product Line:** Low Voltage Switchgear

**Identification Number:** FCLV-3P-2-FD

**Report Number:** 1018-166

**UUT Function:** FCLV Switchgear provides low voltage circuit protection.

**UUT Description:** Feeder section, NEMA1 carbon steel enclosure, 3200A main bus.

**UUT Component Description:** NEMA1 carbon steel enclosure, 3200A copper bus, (1) current transformer (WLG8005MCT2), (2) voltage transformers (Model 450), and (1) UPS (CPE1000).

**UUT PROPERTIES**

Weight (lb)	Dimensions (inches)				Natural Frequency (Hz)		
	Center of Gravity	Width	Depth	Height	FB	SS	V
1,190	50	22.0	39.0	92.0	na	na	na

**SEISMIC TEST PARAMETERS**

Test Criteria	S <sub>DS</sub> (g)	z / h	I <sub>p</sub>	A <sub>FLX-H</sub>	A <sub>RIG-H</sub>	A <sub>FLX-V</sub>	A <sub>RIG-V</sub>
CBC 2022 / ICC-ES-AC156	2.00	1	1.5	3.2g	2.4g	-	-
	2.50	0	1.5	-	-	1.67g	0.67g

Note: The unit was full of contents during testing and remained functional before and after the ICC-ES AC156 test. The unit maintained structural integrity during and after the ICC-ES AC156 Test.

**UUT-2a**

**UNIT UNDER TEST (UUT)  
SUMMARY SHEET**



**Mounting Details:** Combined Floor/Wall mounted with 4 - 1/2" diameter grade 5 bolts (2 wall rear and 2 floor front locations) with Siemens seismic kits 12-F-9050-01 and 12-F9051-03 (1/2" thick oversized plate washers at all bolt locations).



**Manufacturer:** Siemens Industry, Inc.

**Product Line:** Low Voltage Switchgear

**Identification Number:** FCLV-3P-3-FD

**Report Number:** 1018-166

**UUT Function:** FCLV Switchgear provides low voltage circuit protection.

**UUT Description:** Feeder section, NEMA1 carbon steel enclosure, 4000A main bus.

**UUT Component Description:** NEMA1 carbon steel enclosure, 4000A copper bus, (1) current transformers (Model 135), (1) control power transformer (MT1000M), (1) human machine interface (6AV66461AD220A), and HRG (SPL48YK0000-NQ).

**UUT PROPERTIES**

Weight (lb)	Dimensions (inches)				Natural Frequency (Hz)		
	Center of Gravity	Width	Depth	Height	FB	SS	V
1,380	52	32.0	39.0	92.0	na	na	na

**SEISMIC TEST PARAMETERS**

Test Criteria	S <sub>DS</sub> (g)	z / h	I <sub>p</sub>	A <sub>FLX-H</sub>	A <sub>RIG-H</sub>	A <sub>FLX-V</sub>	A <sub>RIG-V</sub>
CBC 2022 / ICC-ES-AC156	2.00	1	1.5	3.2g	2.4g	-	-
	2.50	0	1.5	-	-	1.67g	0.67g

Note: The unit was full of contents during testing and remained functional before and after the ICC-ES AC156 test. The unit maintained structural integrity during and after the ICC-ES AC156 Test.

UUT-2b

**UNIT UNDER TEST (UUT)  
SUMMARY SHEET**



**Mounting Details:** Combined Floor/Wall mounted with 4 - 1/2" diameter grade 5 bolts (2 wall rear and 2 floor front locations) with Siemens seismic kits 12-F-9050-01 and 12-F9051-03 (1/2" thick oversized plate washers at all bolt locations).



**Manufacturer:** Siemens Industry, Inc.

**Product Line:** Low Voltage Switchgear

**Identification Number:** FCLV-3P-3-1H

**Report Number:** 1018-166

**UUT Function:** FCLV Switchgear provides low voltage circuit protection.

**UUT Description:** Single High breaker section, NEMA1 carbon steel enclosure, 3200A main bus.

**UUT Component Description:** NEMA1 carbon steel enclosure, 4000A copper bus, (1) UL 489 circuit breaker, (1) surge protection device (TPS3a0610), and (1) current transformers (WLG5000NMCT23)

**UUT PROPERTIES**

Weight (lb)	Dimensions (inches)				Natural Frequency (Hz)		
	Center of Gravity	Width	Depth	Height	FB	SS	V
1,695	54	32.0	39.0	92.0	na	na	na

**SEISMIC TEST PARAMETERS**

Test Criteria	S <sub>DS</sub> (g)	z / h	I <sub>p</sub>	A <sub>FLX-H</sub>	A <sub>RIG-H</sub>	A <sub>FLX-V</sub>	A <sub>RIG-V</sub>
CBC 2022 / ICC-ES-AC156	2.00	1	1.5	3.2g	2.4g	-	-
	2.50	0	1.5	-	-	1.67g	0.67g

Note: The unit was full of contents during testing and remained functional before and after the ICC-ES AC156 test. The unit maintained structural integrity during and after the ICC-ES AC156 Test.

**UUT-2c**

**UNIT UNDER TEST (UUT)  
SUMMARY SHEET**



**Mounting Details:** Combined Floor/Wall mounted with 4 - 1/2" diameter grade 5 bolts (2 wall rear and 2 floor front locations) with Siemens seismic kits 12-F-9050-01 and 12-F9051-03 (1/2" thick oversized plate washers at all bolt locations).



**Manufacturer:** Siemens Industry, Inc.

**Product Line:** Low Voltage Switchgear

**Identification Number:** FCLV-3P-3-FD

**Report Number:** 1018-166

**UUT Function:** FCLV Switchgear provides low voltage circuit protection.

**UUT Description:** Feeder section, NEMA1 carbon steel enclosure, 4000A main bus.

**UUT Component Description:** NEMA1 carbon steel enclosure, 4000A copper bus, (1) current transformers (Model 135), (1) control power transformer (MT5000M), (1) human machine interface, and HRG (SPL48YK0000-NQ).

**UUT PROPERTIES**

Weight (lb)	Dimensions (inches)				Natural Frequency (Hz)		
	Center of Gravity	Width	Depth	Height	FB	SS	V
1,370	46	40.0	39.0	92.0	na	na	na

**SEISMIC TEST PARAMETERS**

Test Criteria	S <sub>DS</sub> (g)	z / h	I <sub>p</sub>	A <sub>FLX-H</sub>	A <sub>RIG-H</sub>	A <sub>FLX-V</sub>	A <sub>RIG-V</sub>
CBC 2022 / ICC-ES-AC156	2.00	1	1.5	3.2g	2.4g	-	-
	2.50	0	1.5	-	-	1.67g	0.67g

Note: The unit was full of contents during testing and remained functional before and after the ICC-ES AC156 test. The unit maintained structural integrity during and after the ICC-ES AC156 Test.

**UUT-3a**

**UNIT UNDER TEST (UUT)  
SUMMARY SHEET**



**Mounting Details:** Combined Floor/Wall mounted with 4 - 1/2" diameter grade 5 bolts (2 wall rear and 2 floor front locations) with Siemens seismic kits 12-F-9050-01 and 12-F9051-03 (1/2" thick oversized plate washers at all bolt locations).



**Manufacturer:** Siemens Industry, Inc. DATE: 04/25/2023

**Product Line:** Low Voltage Switchgear

**Identification Number:** FCLV-3P-3-FD

**Report Number:** 1018-166

**UUT Function:** FCLV Switchgear provides low voltage circuit protection.

**UUT Description:** Feeder section, NEMA1 carbon steel enclosure, 5000A main bus.

**UUT Component Description:** NEMA1 carbon steel enclosure, 5000A copper bus, (2) current transformers (WLG40005MCT3, WLG4000NMCT23), and (1) UPS (CPE3000).

**UUT PROPERTIES**

Weight (lb)	Dimensions (inches)				Natural Frequency (Hz)		
	Center of Gravity	Width	Depth	Height	FB	SS	V
1,900	50	32.0	39.0	92.0	na	na	na

**SEISMIC TEST PARAMETERS**

Test Criteria	S <sub>DS</sub> (g)	z / h	I <sub>p</sub>	A <sub>FLX-H</sub>	A <sub>RIG-H</sub>	A <sub>FLX-V</sub>	A <sub>RIG-V</sub>
CBC 2022 / ICC-ES-AC156	2.00	1	1.5	3.2g	2.4g	-	-
	2.50	0	1.5	-	-	1.67g	0.67g

Note: The unit was full of contents during testing and remained functional before and after the ICC-ES AC156 test. The unit maintained structural integrity during and after the ICC-ES AC156 Test.



**UUT-3b**

**UNIT UNDER TEST (UUT)  
SUMMARY SHEET**



**Mounting Details:** Combined Floor/Wall mounted with 4 - 1/2" diameter grade 5 bolts (2 wall rear and 2 floor front locations) with Siemens seismic kits 12-F-9050-01 and 12-F9051-03 (1/2" thick oversized plate washers at all bolt locations).



**Manufacturer:** Siemens Industry, Inc. DATE: 04/25/2023

**Product Line:** Low Voltage Switchgear

**Identification Number:** FCLV-3P-3-1H

**Report Number:** 1018-166

**UUT Function:** FCLV Switchgear provides low voltage circuit protection.

**UUT Description:** Single High breaker section, NEMA1 carbon steel enclosure, 5000A main bus.

**UUT Component Description:** NEMA1 carbon steel enclosure, 5000A copper bus, (1) UL 1066 circuit breaker, (1) surge protection device (TPSa0650), and (1) human machine interface (6AV66461AD220A).

**UUT PROPERTIES**

Weight (lb)	Dimensions (inches)				Natural Frequency (Hz)		
	Center of Gravity	Width	Depth	Height	FB	SS	V
2,230	54	32.0	39.0	92.0	na	na	na

**SEISMIC TEST PARAMETERS**

Test Criteria	S <sub>DS</sub> (g)	z / h	I <sub>p</sub>	A <sub>FLX-H</sub>	A <sub>RIG-H</sub>	A <sub>FLX-V</sub>	A <sub>RIG-V</sub>
CBC 2022 / ICC-ES-AC156	2.00	1	1.5	3.2g	2.4g	-	-
	2.50	0	1.5	-	-	1.67g	0.67g

Note: The unit was full of contents during testing and remained functional before and after the ICC-ES AC156 test. The unit maintained structural integrity during and after the ICC-ES AC156 Test.