



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

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

OFFICE USE ONLY	
APPLICATION #:	OSP-0313-10

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

Type:  New  Renewal

**Manufacturer Information**

Manufacturer: GE Zenith Controls

Manufacturer's Technical Representative: Jason Lin

Mailing Address: 830 West 40<sup>th</sup> Street, Chicago, IL 60609

Telephone: (773) 299-6786 Email: jason.lin@ge.com

**Product Information**

Product Name: GE Zenith Controls Paralleling Switchgear & Controls

Product Type: Metalclad Switchgear and Controls

Product Model Number: 1600A to 12000A Main Bus Sections - See Attachment for identification numbers  
(List all unique product identification numbers and/or part numbers)

General Description: Switchgear and controls utilized for the synchronization of multiple power sources to a main bus for the distribution of electricity. Seismic enhancements made to the test units and modifications required to address anomalies observed during the tests shall be incorporated into the production units.

Mounting Description: Rigid floor mounted

**Applicant Information**

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

Contact Person: Travis Soppe PE

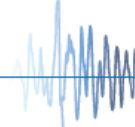
Mailing Address: 124 S Broadway Ave, Boise, Idaho 83702

Telephone: (208) 342-5898 Ext.115 Email: tsoppe@wegai.com

I hereby agree to reimburse the Office of Statewide Health Planning and Development review fees in accordance with the California Administrative Code, 2013.

Signature of Applicant:  Date: 01-03-2013

Title: Vice President Company Name: W.E. Gundy & Associates Inc.



"Equitable Healthcare Accessibility for California"



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

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

Company Name: Harrison Engineering

Name: Nathan Harrison, SE California License Number: S5171

Mailing Address: 1300 N. Ten Mile, Meridian, ID 83642

Telephone: (208) 888-7107 Email: nathan@harrisoneng.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): \_\_\_\_\_

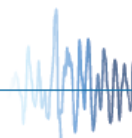
**Testing Laboratory**

Company Name: Clark Dynamic Test Laboratory

Contact Name: J.R. Antenucci, Test Manager

Mailing Address: 1801 Route 51 South, Jefferson Hills, PA 15025

Telephone: 412-387-1004 Email: jrantenucci@clarktesting.com





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

**Seismic Parameters**

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

Design Basis of Equipment or Components ( $F_p/W_p$ ) = Varies

$S_{DS}$  (Design spectral response acceleration at short period, g) = Varies - See Attachments

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

$R_p$  (Equipment or component response modification factor) = 6.0

$\Omega_0$  (System overstrength factor) = 2.5

$I_p$  (Importance factor) = 1.5

$z/h$  (Height factor ratio) = See Attachments

Equipment or Component Natural Frequencies (Hz) = See Attachments

Overall dimensions and weight (or range thereof) = See Attachments

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) = \_\_\_\_\_

$\Omega_0$  (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, 2010:  Yes  No

**List of Attachments Supporting Special Seismic Certification**

Test Report(s)  Drawings  Calculations  Manufacturer's Catalog

Other(s) (Please Specify): Test-Qualification Report, SE Certification Letter, Product Line Matrices

**OSHPD Approval (For Office Use Only) – Approval Expires on December 31, 2019**

Signature:  Date: 2/20/2013

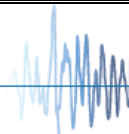
Print Name: M. R. Karim Title: SHFR

Special Seismic Certification Valid Up to :  $S_{DS}$  (g) = See Above  $z/h$  = See Above

Condition of Approval (if applicable): \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



## GE ZENITH PARALLELING SWITCHGEAR & CONTROLS CERTIFIED PRODUCT LINE MATRIX



ID Number	Main Bus Ampré Rating	Bus Support Short Circuit Rating	Enclosure Width (min - max)	Enclosure Depth (min-max)	Enclosure Height (min-max)	Enclosure & Bus Weight (lbs) (min - max)	Max Breaker and Control Weight (lbs)	Maximum Service Weight (lbs)	Tested UUT	ACI56 Test Parameters
1600A-1H	1600A	100kA* - 200kA	26" - 30"	60" - 70"	78" - 90"	1195* - 1371	176	1547	UUT-3	$S_{DS} = 2.5, z/h = 0, \text{ and } I_p = 1.5$
1600A-2H		100kA - 200kA	26" - 30"	60" - 70"	78" - 90"	1229 - 1401	353	1754		
2000A-1H	2000A	100kA - 200kA	26" - 30"	60" - 70"	78" - 90"	1316 - 1511	176	1687		$S_{DS} = 2.13, z/h = 1.0, \text{ and } I_p = 1.5$
2000A-2H		100kA - 200kA	26" - 30"	60" - 70"	78" - 90"	1350 - 1541	353	1894		
3000A-1H	3000A	100kA - 200kA	26" - 38"	60" - 70"	78" - 90"	1376 - 1785	176	1961		$S_{DS} = 2.5, z/h = 0, \text{ and } I_p = 1.5$
3000A-2H		100kA - 200kA	26" - 38"	60" - 70"	78" - 90"	1411 - 1610	353	1963		
3000A-3H	4000A	100kA - 200kA	26" - 38"	60" - 70"	78" - 95"	1504 - 1900	529	2429	UUT-2A	$S_{DS} = 2.5, z/h = 0, \text{ and } I_p = 1.5$
4000A-1H		100kA - 200kA	26" - 38"	60" - 70"	78" - 95"	1437 - 1873	287	2160		
4000A-2H	5000A	100kA* - 200kA*	26" - 38"	60" - 70"	78" - 95"	1471 - 1895	353	2248	UUT-2B	$S_{DS} = 2.5, z/h = 0, \text{ and } I_p = 1.5$
4000A-4H		100kA - 200kA	26" - 38"	60" - 70"	78" - 95"	1564 - 1988	529	2517		
5000A-1H	5000A	100kA - 200kA*	26" - 30"	70" - 90"	78" - 95"	1693 - 2124*	706	2830		$S_{DS} = 2.5, z/h = 0, \text{ and } I_p = 1.5$
5000A-2H		100kA - 200kA	26" - 44"	70" - 90"	78" - 95"	1599 - 2659	463	3122		
5000A-3H	8000A	100kA - 200kA	26" - 38"	70" - 90"	78" - 95"	1633 - 2762	353	3115		$S_{DS} = 2.5, z/h = 0, \text{ and } I_p = 1.5$
5000A-4H		100kA - 200kA	26" - 38"	70" - 90"	78" - 95"	1726 - 2948	529	3477		
6000A-1H	6000A	100kA - 200kA	26" - 44"	70" - 90"	78" - 95"	1858 - 3189	706	3895		$S_{DS} = 2.5, z/h = 0, \text{ and } I_p = 1.5$
6000A-2H		100kA - 200kA	26" - 38"	70" - 90"	78" - 95"	1660 - 2776	463	3239		
6000A-3H	8000A	100kA - 200kA	26" - 38"	70" - 90"	78" - 95"	1694 - 2878	463	3341		$S_{DS} = 2.5, z/h = 0, \text{ and } I_p = 1.5$
6000A-4H		100kA - 200kA	26" - 30"	70" - 90"	90" - 95"	1787 - 3064	529	3593		
8000A-1H	10000A	100kA - 200kA	26" - 44"	80" - 90"	90" - 95"	1919 - 3305	706	4011		$S_{DS} = 1.3, z/h = 1.0, \text{ and } I_p = 1.5$
8000A-2H		100kA - 200kA	26" - 38"	80" - 90"	90" - 95"	2129 - 3103	463	3566		
8000A-3H	12000A	100kA - 200kA	26" - 38"	80" - 90"	90" - 95"	2160 - 3206	973	4179	UUT-1A&1B	$S_{DS} = 1.3, z/h = 1.0, \text{ and } I_p = 1.5$
8000A-4H		100kA - 200kA	26" - 44"	80" - 90"	90" - 95"	2253 - 3392	529	3921		
10000A-1H	10000A	100kA - 200kA	26" - 30"	80" - 90"	90" - 95"	2390 - 3633	706	4339		$S_{DS} = 1.3, z/h = 1.0, \text{ and } I_p = 1.5$
10000A-2H		100kA - 200kA	26" - 44"	80" - 90"	90" - 95"	2408 - 3569	463	4032		
10000A-3H	12000A	100kA - 200kA	26" - 38"	80" - 90"	90" - 95"	2439 - 3671	926	4597		$S_{DS} = 1.3, z/h = 1.0, \text{ and } I_p = 1.5$
10000A-4H		100kA - 200kA	26" - 30"	80" - 90"	90" - 95"	2532 - 3857	628	4485		
12000A-1H	12000A	100kA - 200kA*	26" - 44"	80" - 90"	90" - 95"	2669 - 4098	706	4804	UUT-1A&1B	$S_{DS} = 1.3, z/h = 1.0, \text{ and } I_p = 1.5$
12000A-2H		100kA - 200kA	26" - 38"	80" - 90"	90" - 95"	2408 - 3569*	463	4032		
12000A-3H	12000A	100kA - 200kA	26" - 38"	80" - 90"	90" - 95"	2439 - 3671	926	4597		$S_{DS} = 1.3, z/h = 1.0, \text{ and } I_p = 1.5$
12000A-4H		100kA - 200kA*	26" - 30"	80" - 90"	90" - 95"	2532 - 3857	1102	4959		
						2669 - 4098*	1146	5244	UUT-1C	

1) \*Indicates the dimension/weight of tested specimen.

2) All unit enclosures are constructed of carbon steel.

3) All dimensions listed in the table are representative of a NEMA 1 enclosure. Units with a main bus ampré rating of less than and equal to 6000A available in a NEMA 3R enclosure. The NEMA 3R enclosure consists of adding a roof to the enclosure adding approximately 3" to the height, 4" to the width, and 10" to the depth of the enclosure. Units UUT-2A and UUT-2B are tested with the NEMA 3R.

## GE ZENITH PARALLELING SWITCHGEAR & CONTROLS CERTIFIED PRODUCT LINE MATRIX



ID Number	Enclosure Width	Enclosure Depth	Enclosure Height	Enclosure Weight (lbs)	Component Weights (lbs)	Notes	Tested UUT	ACI56 Test Parameters
GEZ 30X78 CC	30"	30"	78"	594	200 - 300		UUT-4	$S_{DS} = 2.5, z/h = 0, \text{ and } I_p = 1.5$ $S_{DS} = 2.13, z/h = 1.0, \text{ and } I_p = 1.5$
GEZ 36X78 CC	36"	30"	78"	647	200 - 300			
GEZ 38X78 CC	38"	30"	78"	664	200 - 300			
GEZ 30X90 CC	30"	30"	90"	635	200 - 300			
GEZ 36X90 CC	36"	30"	90"	743	200 - 300			
GEZ 38X90 CC	38"	30"	90"	768	200 - 300			
GEZ 30X95 CC	30"	30"	95"	667	200 - 300			
GEZ 36X95 CC	36"	30"	95"	780	200 - 300			
GEZ 38X95 CC	38"	30"	95"	807	200 - 300		UUT-5	

**General Notes:**

1) All unit enclosures are constructed of NEMA 1 rated carbon steel.

## GE ZENITH CONTROLS PARALLELING SWITCHGEAR SUB-COMPONENT MATRIX



Subcomponent ID	Manufacturer	Width (in)	Depth (in)	Height (in)	Weight (lbs)	Notes	UUT	S <sub>DS</sub> *
<b>GE Entelliguard Breaker</b>								
GE-EB-800A	General Electric	17.0	16.3	17.2	176.4	Draw out	UUT-2	2.13g
GE-EB-1600A	General Electric	17.0	16.3	17.2	176.4	Draw out	UUT-2	2.13g
GE-EB-2000A	General Electric	17.0	16.3	17.2	176.4	Draw out	UUT-2	2.13g
GE-EB-3200A	General Electric	17.0	16.3	17.2	209.4	Draw out	UUT-2	2.13g
GE-EB-4000A	General Electric	32.0	15.0	40.0	286.6	Draw out	interpolate	2.13g
GE-EB-5000A	General Electric	29.0	17.0	51.0	463.0	Draw out	UUT-1	0.80g
<b>GE Power Break II Breaker</b>								
GE-PBII-800A	General Electric	20.2	13.8	13.7	160.0	Draw out	UUT-3	2.13g
GE-PBII-1600A	General Electric	20.2	13.8	13.7	193.0	Draw out	interpolate	2.13g
GE-PBII-2000A	General Electric	20.2	13.8	13.7	193.0	Draw out	interpolate	2.13g
GE-PBII-2500A	General Electric	20.4	13.2	28.0	343.0	Draw out	interpolate	2.13g
GE-PBII-3000A	General Electric	20.4	13.2	28.0	354.0	Draw out	interpolate	2.13g
GE-PBII-4000A	General Electric	20.4	18.3	28.0	462.0	Draw out	UUT-2	2.13g
<b>Siemens WL Breaker</b>								
SE-WL-800A	Siemens	18.1	19.7	20.3	159.0	Draw out	UUT-1	0.80g
SE-WL-1600A	Siemens	18.1	19.7	20.3	159.0	Draw out	UUT-1	0.80g
SE-WL-2000A	Siemens	18.1	19.7	20.3	177.0	Draw out	UUT-1	0.80g
SE-WL-3200A	Siemens	18.1	19.7	20.3	209.0	Draw out	UUT-1	0.80g
SE-WL-4000A	Siemens	27.7	19.7	20.3	260.0	Draw out	UUT-2	0.80g

General Notes:

\*SDS values of 2.13 and 0.80 are based on z/h = 1.0. Units and components qualify to a higher level 2.5g and 1.3g at z/h = 0.

## GE ZENITH CONTROLS PARALLELING SWITCHGEAR SUB-COMPONENT MATRIX



Subcomponent ID	Manufacturer	Width (in)	Depth (in)	Height (in)	Weight (lbs)	Notes	UUT	S <sub>DS</sub> *
<b>Current, Potential, Voltage Transformers</b>								
Model 562	ITI	6.30	1.63	8.13	8.0	Incapsulated copper, CT	UUT-3	2.13g
Model 568	ITI	9.88	1.19	6.13	4.0	Incapsulated copper, CT	UUT-2	2.13g
Model 450	ITI	6.00	6.50	7.50	25.0	Incapsulated copper, PT	UUT-1	0.80g
Model 3VT472	ITI	4.38	4.73	5.00	8.0	Incapsulated copper, VT	UUT-1	0.80g
G08HNRC	General Electric	4.33	2.28	4.33	-	Incapsulated copper, CT	UUT-2	2.13g
9T58K	General Electric	6.00	6.50	7.50	25.0	Incapsulated copper, PT	UUT-1 / UUT-2	2.13g
WLNCT3	Siemens	3.00	1.50	3.00	3.0	Incapsulated copper, CT	UUT-1	0.80g
<b>Logic Controller / PLC</b>								
Versa Max	General Electric	1.3	6.0	6.0	20.0	GE PLC	UUT-4	2.13g
RX3i	General Electric	24.0	6.0	6.0	30.0	GE PLC	UUT-3	2.13g
Logix	A-B	13.0	6.0	6.0	20.0	A-B PLC	UUT-5	2.13g
<b>Power Supply</b>								
QS10-241	Puls	2.36	4.61	4.88	2.0		UUT-3	2.13g
<b>Protective Relay / Controller</b>								
350	General Electric	6.62	9.62	7.93	10.0	Protection system	UUT-5	2.13g
489	General Electric	8.52	8.80	9.93	10.0	Protection system	UUT-5	2.13g
750	General Electric	8.52	8.80	9.93	8.0	Protection system	UUT-5	2.13g
SPM-A	Woodward	12.4	8.26	1.73	5.0	Protection system	UUT-3	2.13g
Easy-GEN-3100	Woodward	9.84	8.97	3.3	5.0	Protection system	UUT-3	2.13g
MFR 13	Woodward	3.78	5.12	2.83	1.8	Protection system	UUT-3	2.13g

General Notes:

\*S<sub>DS</sub> values of 2.13 and 0.80 are based on z/h = 1.0. Units and components qualify to a higher level 2.5g and 1.3g at z/h = 0.

## GE ZENITH CONTROLS PARALLELING SWITCHGEAR SUB-COMPONENT MATRIX



Subcomponent ID	Manufacturer	Width (in)	Depth (in)	Height (in)	Weight (lbs)	Notes	UUT	S <sub>Ds</sub> *
<b>Operator Interface Monitor</b>								
VAMP-WN-19	Computer Dynamics	18.66	3.35	15.12	20.0		UUT-4	2.13g
VAMP-WN-24	Computer Dynamics	25.47	3.74	16.69	25.0		UUT-5	2.13g
<b>Metering</b>								
007-41LA-PNAN-AN	Crompton	4.50	3.00	4.50	2.0	Frequency metering	UUT-3 / UUT-4	2.13g
007-05FA-LSUA-C7	Crompton	4.50	3.00	4.50	2.0	Amp metering	UUT-3	2.13g
077TFUA-QQAD-C6	Crompton	4.50	3.00	4.50	2.0	Watt metering	UUT-3	2.13g
007-05GA-PZSJ-C7	Crompton	4.50	3.00	4.50	2.0	Volt metering	UUT-3 / UUT-4	2.13g
77-31LA-QQ-C6-SM	Crompton	4.50	3.00	4.50	2.0	Var metering	UUT-3	2.13g
106452AD-AA	Crompton	4.50	3.00	4.50	2.0	Synscope	UUT-4	2.13g
PQM II	General Electric	7.36	4.92	4.11	5.0	Power quality meter	UUT-5	2.13g
EPM 9450	General Electric	4.38	1.44	4.38	12.0	Power quality meter	UUT-5	2.13g
<b>Fan</b>								
4715FS	IMC	25.00	2.00	7.00	13.0	6000A	UUT-2	2.13g
5915PC	NEWARK	18.00	2.00	13.00	18.0	12000A	UUT-1	0.80g
<b>IDEC</b>								
5X5	IDEC	8.50	4.00	8.50	10.0		UUT-4	2.13g
2X9	IDEC	14.80	2.00	3.78	8.0		UUT-3	2.13g

General Notes:

\*S<sub>Ds</sub> values of 2.13 and 0.80 are based on z/h = 1.0. Units and components qualify to a higher levels 2.5g and 1.3g at z/h = 0.

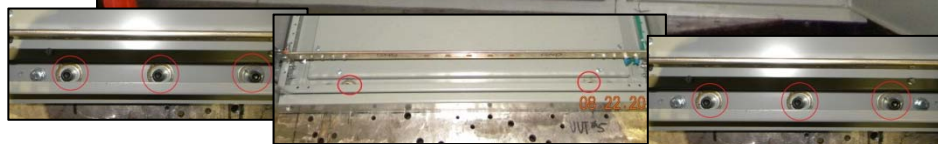


UUT-1

# UNIT UNDER TEST (UUT) SUMMARY SHEET



**Mounting Details:** Floor mounted with 16 - 1/2" diameter bolts (8 bolts in both front and back). The three units (UUT-1A, UUT-1B, UUT-1C) are bolted together using 8 - 1/2" diameter bolts.



Anchorage

**Manufacturer:** GE ZENITH CONTROLS

**Product Line:** 1600A to 12000A Paralleling Switchgear and Controls

**Identification Number:** 12000A-1H (101), 12000A-1H (102), and 12000A-4H (103)

**UUT Function:** Synchronization of multiple power sources to main bus for distribution of electricity.

**UUT Description:** The unit is comprised of three NEMA1 steel enclosures with 12000A main bus; UUT 1A is an empty axillary box measuring 30" x 90" x 95", UUT-1B is a single high breaker cabinet measuring 44" x 90" x 95", and UUT-1C is a four high breaker cabinet measuring 30" x 90" x 95".

**UUT Component Description:** NEMA1 Steel Enclosure, 12000A copper main bus, 200kA short circuit insulator support, GE-EB-5000A, SE-WL-800A, SE-WL-1600A, SE-WL-2000A, and SE-WL-3200A Breakers, 5 - Newark 5915PC Fans, 3-Model WLNCT3 CT's, Model 450 PT, Model 9T58k PT, and Model 3VT472 VT.

### UUT PROPERTIES

Weight (lb)	Dimensions (inches)			Natural Frequency (Hz)		
	Enclosure Width	Enclosure Depth	Enclosure Height	FB	SS	V
15,100	104	90	95	12.2	4.6	27.6

### SEISMIC TEST PARAMETERS

Test Criteria	S <sub>DS</sub>	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>
ICC-ES AC156 2010	1.30	0	1.5	1.30	0.52	0.87	0.35
ICC-ES AC156 2010	0.80	1.0	1.5	1.28	0.96	0.54	0.22

**UUT-2****UNIT UNDER TEST (UUT)  
SUMMARY SHEET**

**Mounting Details:** Floor mounted with 8 - 1/2" diameter bolts (4 bolts in both front and back). The two units (UUT-2A, UUT-2B) are bolted together using 8 - 1/2" diameter bolts.

**Anchorage****Manufacturer:** GE ZENITH CONTROLS**Product Line:** 1600A to 12000A Paralleling Switchgear and Controls**Identification Number:** 4000A-2H (201) and 4000A-4H (202)**UUT Function:** Synchronization of multiple power sources to main bus for distribution of electricity.

**UUT Description:** The unit is comprised of two NEMA3R steel enclosures with 4000A main bus; UUT-2A is a two high breaker cabinet measuring 38" x 66" x 95" and UUT-2B is a four high breaker cabinet measuring 26" x 66" x 95".

**UUT Component Description:** NEMA3R Steel Enclosure, 4000A copper main bus, 100kA short circuit insulator supports, SE-WL-4000A, GE-PBII-4000A, GE-EB-800A, GE-EB-1600A, GE-EB-2000A, and GE-EB-3200A Breakers, 2-IMC 4715FS Fans, 3-Model 568 CT's, Model G08HNRC CT, and Model 9T58K PT.

**UUT PROPERTIES**

Weight (lb)	Dimensions (inches)			Natural Frequency (Hz)		
	Enclosure Width	Enclosure Depth	Enclosure Height	FB	SS	V
7,480	64	66	95	25	6.2	> 33.0

**SEISMIC TEST PARAMETERS**

Test Criteria	S <sub>DS</sub>	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>
ICC-ES AC156 2010	2.50	0	1.5	2.50	1.00	1.67	0.67
ICC-ES AC156 2010	2.13	1.0	1.5	3.41	2.56	1.43	0.58

**Mounting Details:** Floor mounted with 4 - 1/2" diameter bolts (2 bolts in both front and back).



Anchorage



**Manufacturer:** GE ZENITH CONTROLS

**Product Line:** 1600A to 12000A Paralleling Switchgear and Controls

**Identification Number:** 1600A-1H (301)

**UUT Function:** Synchronization of multiple power sources to main bus for distribution of electricity.

**UUT Description:** The unit is comprised of a standalone NEMA1 steel enclosure with 1600A main bus and a single breaker cabinet on the bottom and control system on the top.

**UUT Component Description:** NEMA1 Steel Enclosure, 1600A copper main bus, 100kA short circuit insulator supports, GE-PB-II-800A Breaker, Model 562 CT, QS10-241 Power Supply, RX3i PLC, SMP-A protection, Easy-GEN-3100 protection, MFR13 protection, 007-41LA-PNAN-AN frequency, 007-05FA-LSUA-C7 amp, 077TFUA-QQAD-C6 watt, 0077-05GA-PZSJ-CY volt, and 77-31LA-QQ-C6-SM var meter.

**UUT PROPERTIES**

Weight (lb)	Dimensions (inches)			Natural Frequency (Hz)		
	Enclosure Width	Enclosure Depth	Enclosure Height	FB	SS	V
1,620	26	60	78	18.7	7.5	> 33.0

**SEISMIC TEST PARAMETERS**

Test Criteria	S <sub>DS</sub>	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>
ICC-ES AC156 2010	2.50	0	1.5	2.50	1.00	1.67	0.67
ICC-ES AC156 2010	2.13	1.0	1.5	3.41	2.56	1.43	0.58



**UUT-4**

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



**Mounting Details:** Floor mounted with 4 - 1/2" diameter bolts (2 bolts in both front and back).



**Anchorage**



**Manufacturer:** GE ZENITH CONTROLS

**Product Line:** 1600A to 12000A Paralleling Switchgear and Controls

**Identification Number:** GEZ 30X78 CC (401)

**UUT Function:** Synchronization of multiple power sources to main bus for distribution of electricity.

**UUT Description:** The unit is comprised of a standalone NEMA1 rated steel enclosed control cabinet.

**UUT Component Description:** NEMA1 Steel Enclosure, Versa Max PLC, VAMP-WN-19 operator interface, 007-41LA-PNAN-AN frequency meter, 007-05GA-PZSJ-C7 volt meter, 106452AD-AA synchroscope, and 5x5 IDEC.

**UUT PROPERTIES**

Weight (lb)	Dimensions (inches)			Natural Frequency (Hz)		
	Enclosure Width	Enclosure Depth	Enclosure Height	FB	SS	V
820	30	30	78	18.8	12	> 33.0

**SEISMIC TEST PARAMETERS**

Test Criteria	S <sub>DS</sub>	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>
ICC-ES AC156 2010	2.50	0	1.5	2.50	1.00	1.67	0.67
ICC-ES AC156 2010	2.13	1.0	1.5	3.41	2.56	1.43	0.58

UUT-5

UNIT UNDER TEST (UUT)  
SUMMARY SHEET



Mounting Details: Floor mounted with 4 - 1/2" diameter bolts (2 bolts in both front and back).



Anchorage



Manufacturer: GE ZENITH CONTROLS

Product Line: 1600A to 12000A Paralleling Switchgear and Controls

Identification Number: GEZ 38X95 CC (501)

UUT Function: Synchronization of multiple power sources to main bus for distribution of electricity.

UUT Description: The unit is comprised of a standalone NEMA1 rated steel enclosed control cabinet.

UUT Component Description: NEMA1 Steel Enclosure, Logix PLC, Models 350/489/750 protective relays, VAMP-WN-24 operator interface, PQMII & EPM9450 power quality meters.

UUT PROPERTIES

Weight (lb)	Dimensions (inches)			Natural Frequency (Hz)		
	Enclosure Width	Enclosure Depth	Enclosure Height	FB	SS	V
1,055	38	30	95	25.3	11.7	> 33.0

SEISMIC TEST PARAMETERS

Test Criteria	S <sub>DS</sub>	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>
ICC-ES AC156 2010	2.50	0	1.5	2.50	1.00	1.67	0.67
ICC-ES AC156 2010	2.13	1.0	1.5	3.41	2.56	1.43	0.58