



OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT  
FACILITIES DEVELOPMENT DIVISION

APPLICATION FOR OSHPD SPECIAL SEISMIC  
CERTIFICATION PREAPPROVAL (OSP)

OFFICE USE ONLY

APPLICATION #: OSP – 0035

OSHPD Special Seismic Certification Preapproval (OSP)

Type: ☐ New ☒ Renewal

Manufacturer Information

Manufacturer: General Electric

Manufacturer's Technical Representative: Yogesh Patel

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

Telephone: (224) 279-7013

Email: [yogeshkumar.patel@us.abb.com](mailto:yogeshkumar.patel@us.abb.com)

Product Information

Product Name: Automatic and Bypass Transfer Switches

Product Type: ZT, Z1, Z4, ZBT-Vertical, ZBT-Horizontal

Product Model Number: See certified product line matrices

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

General Description: Automatic and By-pass Transfer Switches, which are manual, automatic, or a combination of both. Seismic enhancements made to the test units and modifications required to address anomalies observed during 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, SE

Mailing Address: 1199 Shoreline Drive, Suite 310, Boise, Idaho 83702

Telephone: (208) 342-5989 Ext 115

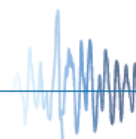
Email: [tsoppe@wegai.com](mailto:tsoppe@wegai.com)

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

Signature of Applicant:  Date: 08-28-2018

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

Name: Travis Soppe, SE California License Number: S6115

Mailing Address: 1199 Shoreline Drive, Suite 310, Boise, Idaho 83702

Telephone: (208) 342-5989 Ext. 115 Email: [tsoppe@wegai.com](mailto:tsoppe@wegai.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): \_\_\_\_\_

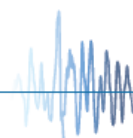
**Testing Laboratory**

Company Name: Clark Dynamic Testing Laboratory

Contact Name: Pat Wetherill

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

Telephone: 412-387-1676 Email: [PWetherill@ClarkTesting.com](mailto:PWetherill@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 ( $F_p/W_p$ ) = 1.50

$S_{DS}$  (Design spectral response acceleration at short period, g) = 2.00

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

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

$\Omega_0$  (System overstrength factor) = 2.0

$I_p$  (Importance factor) = 1.5

$z/h$  (Height factor ratio) = 1

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

$\Omega_0$  (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, 2015: ☐ Yes ☒ No

## List of Attachments Supporting Special Seismic Certification

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

☒ Other(s) (Please Specify): Seismic Certification Letter, Certified System Matrix, UUT Summary Sheets

## OSHPD Approval (For Office Use Only) – Approval Expires on December 31, 2025

Signature:  Date: July 17, 2020

Print Name: Timothy J. Piland Title: SSE

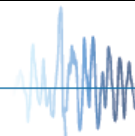
Special Seismic Certification Valid Up to:  $S_{DS}$  (g) = 2.00  $z/h$  = 1

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

\_\_\_\_\_

\_\_\_\_\_

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



## GE HORIZONTAL BYPASS TRANSFER SWITCH CERTIFIED PRODUCT LINE MATRIX



ID Number <sup>1)</sup>	Ampere Rating	Frame Size <sup>2)</sup>	Pole	NEMA Rating	Enclosure Dimensions (in)			Service Weight (lbs)	Representative UUT
					Width	Depth	Height		
ZBTS-B1-1200	1200	64B	3	1	42.0	36.0	80.0	1334	UUT-5
ZBTS-B1/ZBTSD-B1/ZBTSCT-B1/Z30/Z3D/Z3C-600	600	64B	3 / 4	1	39.0 - 42.0	36.0	80.0	1335 - 1640	interpolated
ZBTS-B1/ZBTSD-B1/ZBTSCT-B1/Z30/Z3D/Z3C-800	800	64B	3 / 4	1	39.0 - 42.0	36.0	80.0	1335 - 1640	interpolated
ZBTS-B1/ZBTSD-B1/ZBTSCT-B1/Z30/Z3D/Z3C-1000	1000	64B	3 / 4	1	39.0 - 42.0	36.0	80.0	1335 - 1640	interpolated
ZBTS-B1/ZBTSD-B1/ZBTSCT-B1/Z30/Z3D/Z3C-1200	1200	64B	3 / 4	1	39.0 - 42.0	36.0	80.0	1335 - 1640	interpolated
ZBTS-B1/ZBTSD-B1/ZBTSCT-B1/Z30/Z3D/Z3C-1600	1600	65B	3 / 4	1	40.0 - 46.1	64.6	80.0	4453 - 5750	interpolated
ZBTS-B1/ZBTSD-B1/ZBTSCT-B1/Z30/Z3D/Z3C-2000	2000	65B	3 / 4	1	40.0 - 46.1	64.6	80.0	4454 - 5750	interpolated
ZBTS-B1/ZBTSD-B1/ZBTSCT-B1/Z30/Z3D/Z3C-2600	2600	65B	3 / 4	1	40.0 - 46.1	64.6	80.0	4455 - 5750	interpolated
ZBTS-B1/ZBTSD-B1/ZBTSCT-B1/Z30/Z3D/Z3C-3000	3000	65B	3 / 4	1	40.0 - 46.1	64.6	80.0	4456 - 5750	interpolated
ZBTS-B1-3000	3000	65B	4	1	46.1	64.6	80.0	5747	UUT-6

### Notes:

- 1) All components are manufactured by GE unless otherwise noted. The part numbers listed uniquely identify the type of component, manufacturer, and material of construction for each sub-component within the tested units. The ZBTS-B1/ZBTSD-B1/ZBTSCT-B1/Z30/Z3D/Z3C Horizontal Bypass transfer switches are of nearly identical construction and have minor control differences listed below.
- 2) Enclosures are constructed of bolted and welded carbon steel.

### ZBT AND Z3 - Horizontal Bypass Switch Models

- ZBTS-B1 - Open Transition with MX250 Controller
- ZBTSD-B1 - Delay Transition with MX250 Controller
- ZBTSCT-B1 - Closed Transition with MX250 Controller
- Z30 - Open Transition with MX350 Controller
- Z3D - Delay Transition with MX350 Controller
- Z3C - Closed Transition with MX350 Controller



# GE VERTICAL BYPASS TRANSFER SWITCH CERTIFIED PRODUCT LINE MATRIX



ID Number <sup>1)</sup>	Ampere Rating	Frame Size <sup>2)</sup>	Pole	NEMA Rating	Enclosure Dimensions (in)			Service Weight (lbs)	Representative UUT
					Width	Depth	Height		
ZBTS-B0/ZBTSD-B0/Z20/Z2D/Z2C-100 to 400	100 - 400	F14C	3 / 4	1	30.0	28.5	86.0	770 - 875	extrapolated
ZBTS-B0-400	400	F14C	3	1	30.0	28.5	86.0	875	UUT-3
ZBTSCT-B0-100 to 400	100 - 400	64B	3 / 4	1	36.0 - 40.0	28.3	90.0	1220 - 1385	interpolated
ZBTS-B0/ZBTSD-B0/ZBTSCT-B0/Z20/Z2D/Z2C-600	600	64B	3 / 4	1, 3R, 4, 12	36.0 - 40.0	28.3	90.0	1220 - 1385	interpolated
ZBTS-B0/ZBTSD-B0/ZBTSCT-B0/Z20/Z2D/Z2C-800	800	64B	3 / 4	1, 3R, 4, 12	40.0 - 46.0	28.3	90.0	1355 - 1640	interpolated
ZBTS-B0/ZBTSD-B0/ZBTSCT-B0/Z20/Z2D/Z2C-1000	1000	64B	3 / 4	1, 3R, 4, 12	40.0 - 46.0	28.3	90.0	1355 - 1640	interpolated
ZBTS-B0/ZBTSD-B0/ZBTSCT-B0/Z20/Z2D/Z2C-1200	1200	64B	3 / 4	1, 3R, 4, 12	40.0 - 46.0	28.3	90.0	1355 - 1640	interpolated
ZBTS-B0/ZBTSD-B0/ZBTSCT-B0/Z20/Z2D/Z2C-1600	1600	65B	3 / 4	1	40.6 - 46.1	64.6	80.0	4044 - 4431	interpolated
ZBTS-B0/ZBTSD-B0/ZBTSCT-B0/Z20/Z2D/Z2C-2000	2000	65B	3 / 4	1	40.6 - 46.1	64.6	80.0	4044 - 4431	interpolated
ZBTS-B0/ZBTSD-B0/ZBTSCT-B0/Z20/Z2D/Z2C-2600	2600	65B	3 / 4	1	40.6 - 46.1	64.6	80.0	4044 - 4431	interpolated
ZBTS-B0/ZBTSD-B0/ZBTSCT-B0/Z20/Z2D/Z2C-3000	3000	65B	3 / 4	1	40.6 - 46.1	64.6	80.0	4456 - 5750	interpolated
ZBTS-B0/ZBTSD-B0/ZBTSCT-B0/Z20/Z2D/Z2C-4000	4000	65B	3 / 4	1	47.5 - 54.0	81.0	90.0	4660 - 6000	interpolated
ZBTS-B0-4000	4000	65B	4	1	54.0	81.0	90.0	6000	UUT-4

## Notes:

1) All components are manufactured by GE unless otherwise noted. The part numbers listed uniquely identify the type of component, manufacturer, and material of construction for each sub-component within the tested units. The ZBTS-B0/ZBTSD-B0/ZBTSCT-B0/Z20/Z2D/Z2C Vertical Bypass transfer switches are of nearly identical construction with minor control differences listed below.

2) Enclosures are constructed of bolted and welded carbon steel.

## ZBT AND Z2 - Vertical Bypass Switch Models

- ZBTS-B0 - Open Transition with MX250 Controler
- ZBTSD-B0 - Delay Transition with MX250 Controler
- ZBTSCT-B0 - Closed Transition with MX250 Controler
- Z20 - Open Transition with MX350 Controler
- Z2D - Delay Transition with MX350 Controler
- Z2C - Closed Transition with MX350 Controler

# GE AUTOMATIC TRANSFER SWITCH CERTIFIED PRODUCT LINE MATRIX



ID Number <sup>1)</sup>	Ampere Rating	Frame Size <sup>2)</sup>	Pole	NEMA Rating	Enclosure Dimensions (in)			Service Weight (lbs)	Representative UUT
					Width	Depth	Height		
ZTG-A0/ZTGD-A0-600	600	F14	2 / 3 / 4	1, 3R, 4, 12	24.0	20.0	69.0	214 - 265	extrpolated
ZTG-A0-600	600	F14	3	1	24.0	20.0	69.0	265	UUT-1
ZTS-B0/ZTSD-B0/ZTSCT-B0/Z1O/Z1D/Z1C-600	600	63L	2 / 3 / 4	1, 3R, 4, 12	40.0	20.0	74.0	380 - 430	interpolated
ZTG-A0/ZTGD-A0-800	800	63L	2 / 3 / 4	1, 3R, 4, 12	40.0	20.0	74.0	460 - 490	interpolated
ZTS-B0/ZTSD-B0/ZTSCT-B0/Z1O/Z1D/Z1C-800	800	63L	2 / 3 / 4	1, 3R, 4, 12	40.0	20.0	74.0	455 - 560	interpolated
ZTG-A0/ZTGD-A0-1000	1000	63L	2 / 3 / 4	1, 3R, 4, 12	40.0	20.0	74.0	475 - 560	interpolated
ZTS-B0/ZTSD-B0/ZTSCT-B0/Z1O/Z1D/Z1C-1000	1000	63L	2 / 3 / 4	1, 3R, 4, 12	40.0	20.0	74.0	455 - 560	interpolated
ZTG-A0/ZTGD-A0-1200	1200	63L	2 / 3 / 4	1, 3R, 4, 12	40.0	20.0	74.0	475 - 560	interpolated
ZTS-B0/ZTSD-B0/ZTSCT-B0/Z1O/Z1D/Z1C-1200	1200	63L	2 / 3 / 4	1, 3R, 4, 12	40.0	20.0	74.0	455 - 560	interpolated
ZT3-1000	1000	40LA	3	1	36.5	23.5	90.0	917	UUT-1x
ZT3-1000	1000	40LA	2 / 3 / 4	1, 3R, 4, 12	36.5-38.8	23.5	90.0	867-1062	interpolated
ZT3-1200	1200	40LA	2 / 3 / 4	1, 3R, 4, 12	36.5-38.8	23.5	90.0	867-1062	interpolated
ZT3-1600	1600	40LA	2 / 3 / 4	1, 3R, 4, 12	36.5-38.8	23.5	90.0	867-1062	interpolated
ZTG-A4/ZTGD-A4-1600	1600	65L	2 / 3 / 4	1, 3R, 4, 12	35.5-37.5	48.0-49.0	90.0	1010 - 1480	interpolated
ZTS-B0/ZTSD-B0/ZTSCT-B0/Z1O/Z1D/Z1C-1600	1600	65L	2 / 3 / 4	1	36.0	48.0	90.0	1010 - 1190	interpolated

## Notes:

<sup>1)</sup> All components are manufactured by GE unless otherwise noted. The part numbers listed uniquely identify the type of component, manufacturer, and material of construction for each sub-component within the tested units. The transfer switches are of nearly identical construction with minor control differences listed to right.

<sup>2)</sup> Enclosures are constructed of bolted and welded carbon steel.

## ZT and Z1 - Transfer Switch Models

- ZTG-A0/A4 - Open Transition with MX150 Controller
- ZTGD-A0/A4 - Delay Transition with MX150 Controller
- ZTS-B0/B4 - Open Transition with MX250 Controller
- ZTSD-B0/B4 - Delay Transition with MX250 Controller
- ZTSCT-B0/B4 - Closed Transition with MX250 Controller
- Z1O/Z4O - Open Transition with MX350 Controller
- Z1D/Z4D - Delay Transition with MX350 Controller
- Z1C/Z4C - Closed Transition with MX350 Controller

# GE AUTOMATIC TRANSFER SWITCH CERTIFIED PRODUCT LINE MATRIX



ID Number <sup>1)</sup>	Ampere Rating	Frame Size <sup>2)</sup>	Pole	NEMA Rating	Enclosure Dimensions (in)			Service Weight (lbs)	Representative UUT
					Width	Depth	Height		
ZTS-B4/ZTSD-B4/ZTSCT-B4/Z4O/Z4D/Z4C-1600	1600	65L	2 / 3 / 4	1, 3R, 4, 12	35.5-37.5	48.0-49.0	90.0	1010 - 1480	interpolated
ZTG-A4/ZTGD-A4-2000	2000	65L	2 / 3 / 4	1, 3R, 4, 12	35.5-37.5	48.0-49.0	90.0	1010 - 1480	interpolated
ZTS-B0/ZTSD-B0/ZTSCT-B0/Z1O/Z1D/Z1C-2000	2000	65L	2 / 3 / 4	1	36.0	48.0	90.0	1010 - 1190	interpolated
ZT3-2000	2000	40LA	2 / 3 / 4	1, 3R, 4, 12	36.5-38.8	23.5	90.0	867-1062	interpolated
ZTS-B4/ZTSD-B4/ZTSCT-B4/Z4O/Z4D/Z4C-2000	2000	65L	2 / 3 / 4	1, 3R, 4, 12	35.5-37.5	48.0-49.0	90.0	1010 - 1480	interpolated
ZTG-A4/ZTGD-A4-2600	2600	65L	2 / 3 / 4	1, 3R, 4, 12	35.5-37.5	48.0-49.0	90.0	1010 - 1480	interpolated
ZT3-2600	2600	40LA	2 / 3 / 4	1, 3R, 4, 12	36.5-38.8	23.5-53.5	90.0	950-1430	interpolated
ZTG-A4/ZTGD-A4-3000	3000	65L	2 / 3 / 4	1, 3R, 4, 12	35.5-37.5	48.0-49.0	90.0	1010 - 1480	interpolated
ZT3-3000	3000	40LA	2 / 3 / 4	1, 3R, 4, 12	36.5-38.8	23.5-53.5	90.0	950-1430	interpolated
ZT3-3000	3000	40LA	4	3R, 4, 12	38.8	41.5	90.0	1295	UUT-2x
ZTS-B0/ZTSD-B0/ZTSCT-B0/Z1O/Z1D/Z1C-3000	3000	65L	2 / 3 / 4	1	36.0	48.0	90.0	1130 - 1415	interpolated
ZTS-B4/ZTSD-B4/ZTSCT-B4/Z4O/Z4D/Z4C-3000	3000	65L	2 / 3 / 4	1, 3R, 4, 12	35.5-37.5	48.0-49.0	90.0	1010 - 1480	interpolated
ZTS-B0/ZTSD-B0/ZTSCT-B0/Z1O/Z1D/Z1C-4000	4000	65L	2 / 3 / 4	1	46.0	60.0	90.0	1595 - 2100	interpolated
ZTS-B0-4000	4000	65L	4	1	46.0	60.0	90.0	2100	UUT-2

## Notes:

<sup>1)</sup> All components are manufactured by GE unless otherwise noted. The part numbers listed uniquely identify the type of component, manufacturer, and material of construction for each sub-component within the tested units.

<sup>2)</sup> Enclosures are constructed of bolted and welded carbon steel.

<sup>3)</sup> The transfer switches are of nearly identical construction with minor control differences listed to right.

## ZT and Z1 - Transfer Switch Models

- ZTG-A0/A4 - Open Transition with MX150 Controller
- ZTGD-A0/A4 - Delay Transition with MX150 Controller
- ZTS-B0/B4 - Open Transition with MX250 Controller
- ZTSD-B0/B4 - Delay Transition with MX250 Controller
- ZTSCT-B0/B4 - Closed Transition with MX250 Controller
- Z-1O/4O - Open Transition with MX350 Controller
- Z-1D/4D - Delay Transition with MX350 Controller
- Z-1C/4C - Closed Transition with MX350 Controller

# GE AUTOMATIC TRANSFER SWITCH AND BYPASS TRANSFER SWITCH CERTIFIED SUBCOMPONENT MATRIX



Subcomponent ID Number	Description	Manufacturer	General Dimensions (in)			Weight (lbs)	Representative UUT
			Width	Depth	Height		
Automatic Transfer Switch Power Panel Assembly							
50C-2034-600	600A ZTG-A0	GE	25.2	12.0	36.3	80	UUT-1
50C-2003-600/1200	600-1200A ZTG-A0/ZTGD-A0 600-1200A ZTS-B0/ZTSD-B0/ZTSCT-B0/Z1O/Z1D/Z1C	GE	21.6-27.4	12.0	36.3	210-230	interpolated
50C-1050-1600/3000	1600-3000A ZTG-A4/ZTGD-A4 1600-3000A ZTS-B4/ZTSD-B4/ZTSCT-B4/Z4O/Z4D/Z4C	GE	32.3	34.1	25.3	410-463	interpolated
23C-4001-1000/3000	1000-3000A ZT3	GE	28.9	14.6	28.6	450	UUT-1x UUT-2x
50C-2005-1600/3000	1600-3000A ZTG-A0/ZTGD-A0 1600-3000A ZTS-B0/ZTSD-B0/ZTSCT-B0/Z1O/Z1D/Z1C	GE	24.8-30.3	28.6	30.5	365-690	interpolated
50C-2030-4000	4000A ZTS-B0/ZTSD-B0/ZTSCT-B0/Z1O/Z1D/Z1C	GE	32.3-38.8	31.6	30.5	820-1045	interpolated
50C-2030-4000	4000A ZTS-B0	GE	38.8	31.6	30.5	1045	UUT-2
Vertical Bypass Power Panel Assembly							
50C-2036-100/400	100-400A ZBTS-B0/ZBTSD-B0/ZBTSCT-B0 100-400A Z20/Z2D/Z2C	GE	25.2	28.0	45.3	310-380	extrapolated
50C-2036-400	400A ZBTS-B0	GE	25.2	28.0	45.3	380	UUT-3
50C-2022-600/1200	600-1200A ZBTS-B0/ZBTSD-B0/ZBTSCT-B0 600-1200A Z20/Z2D/Z2C	GE	31.8-37.4	26.4	69.4	660-910	interpolated
50C-2024-1600/3000	1600-3000A ZBTS-B0/ZBTSD-B0/ZBTSCT-B0 1600-3000A Z20/Z2D/Z2C	GE	40.0-50.0	72.0	89.9	1978-3049	interpolated
50C-2031-4000	4000A ZBTS-B0/ZBTSD-B0/ZBTSCT-B0 4000A Z20/Z2D/Z2C	GE	47.5-54.0	80.0	89.9	4310-5510	interpolated
50C-2031-4000	4000A ZBTS-B0	GE	54.0	80.0	89.9	5510	UUT-4

# GE AUTOMATIC TRANSFER SWITCH AND BYPASS TRANSFER SWITCH CERTIFIED SUBCOMPONENT MATRIX



Subcomponent ID Number	Description	Manufacturer	General Dimensions (in)			Weight (lbs)	Representative UUT
			Width	Depth	Height		
Horizontal Bypass Power Panel Assembly							
50C-2048-600-1200	600-1200A ZBTS-B1/ZBTSD-B1/ZBTSC-T-B1 600-1200A Z30/Z3D/Z3C	GE	32.5-37.5	41.2	38.6	660-738	extrapolated
50C-2048-1200	1200A ZBTS-B1	GE	37.5	41.2	38.6	738	UUT-5
50C-2042-1600-3000	1600-3000A ZBTS-B1/ZBTSD-B1/ZBTSC-T-B1 600-1200A Z30/Z3D/Z3C	GE	40.0-45.5	63.0	79.5	2870-3225	interpolated
50C-2042-3000	3000A ZBTS-B1	GE	45.5	63.0	79.5	3225	UUT-6
Electrical Panel / Controller Components							
MX150	Controller and CPU	GE	11.0	4.0	14.0	12.0	UUT-1 UUT-1x
MX250	Controller and CPU	GE	11.0	4.0	14.0	12.0	UUT-2/3 UUT-4/5 UUT-6
MX350	Controller and CPU	GE	12.0	4.0	10.0	10.0	UUT-2x



**UUT-1  
(F14 600A)**

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



**Mounting Details:** Rigid floor mounted with 4 - 1/2" diameter grade 5 bolts



**Manufacturer:** GE

**Product Line:** Automatic Transfer Switch

**Component:** ZTG-A0-600

**UUT Function:** Manual/Automatic power switching from utility power to emergency power.

**UUT Description:** 600A 3-Pole Automatic Transfer Switch with 600A ZTG-A0 Power Panel, MX150 Controller, and NEMA 1 Frame Size F14 enclosure.

**Test Location:** Clark Dynamics Testing Labs, PA

**Test Date:** December 2006

**UUT PROPERTIES**

Weight (lb)	Dimensions (inches)			Natural Frequency (Hz)		
	Width	Depth	Height	FB	SS	V
265	24.0	20.0	69.0	29.7	10.9	>33.3

**SEISMIC TEST PARAMETERS**

Building Code / Test Criteria	S <sub>DS</sub> (g)	z / h	I <sub>p</sub>	A <sub>FLX-H</sub> (g)	A <sub>RIG-H</sub> (g)	A <sub>FLX-V</sub> (g)	A <sub>RIG-V</sub> (g)
CBC 2016 / ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	1.34	0.54

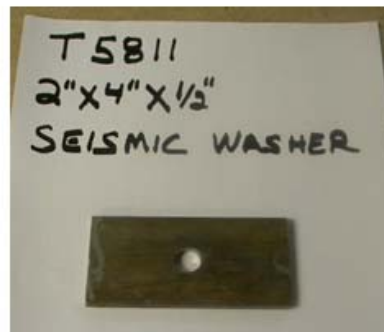
Note: The unit was full of contents during testing and remained functional before and after the ICC-ES AC156 test. The unit maintained structural integrity during and after the ICC-ES AC156 Test.

**UUT-1x  
(40LA-1000A)**

## UNIT UNDER TEST (UUT) SUMMARY SHEET



**Mounting Details:** Rigid floor mount with 6 - 1/2" diameter anchor bolts and 2x4x0.25" plate washers.



Use seismic washer at  
all six anchor bolt locations



**Manufacturer:** GE

**Product Line:** Automatic Transfer Switch

**Component:** ZT3-1000

**UUT Function:** Manual/Automatic power switching from utility power to emergency power.

**UUT Description:** 1000A 3-Pole Automatic Transfer Switch with 1000A ZT3 Power Panel, MX150 Controller, and NEMA 1 Frame Size 40LA enclosure.

**Test Location:** Clark Dynamics Testing Labs, PA

**Test Date:** December 2012

### UUT PROPERTIES

Weight (lb)	Dimensions (inches)			Natural Frequency (Hz)		
	Width	Depth	Height	FB	SS	V
917	36.5	23.5	90.0	6.8	9.0	>33.3

### SEISMIC TEST PARAMETERS

Building Code / Test Criteria	S <sub>DS</sub> (g)	z / h	I <sub>p</sub>	A <sub>FLX-H</sub> (g)	A <sub>RIG-H</sub> (g)	A <sub>FLX-V</sub> (g)	A <sub>RIG-V</sub> (g)
CBC 2016 / ICC-ES AC156	2.13	1.0	1.5	3.40	2.55	1.68	0.68

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-2  
(65L-4000A)**

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



**Mounting Details:** Rigid floor mounted with 8 - 1/2" diameter grade 5 bolts



**Manufacturer:** GE

**Product Line:** Automatic Transfer Switch

**Component:** ZTS-B0-4000

**UUT Function:** Manual/Automatic power switching from utility power to emergency power.

**UUT Description:** 4000A 4-Pole Automatic Transfer Switch with 4000A ZTS-B0 Power Panel, MX250 Controller, and NEMA 1 Frame Size 65L enclosure.

**Test Location:** Clark Dynamics Testing Labs, PA

**Test Date:** December 2006

**UUT PROPERTIES**

Weight (lb)	Dimensions (inches)			Natural Frequency (Hz)		
	Width	Depth	Height	FB	SS	V
2,100	46.0	60.0	90.0	19.5	10.9	>33.3

**SEISMIC TEST PARAMETERS**

Building Code / Test Criteria	S <sub>DS</sub> (g)	z / h	I <sub>p</sub>	A <sub>FLX-H</sub> (g)	A <sub>RIG-H</sub> (g)	A <sub>FLX-V</sub> (g)	A <sub>RIG-V</sub> (g)
CBC 2016 / ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	1.34	0.54

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.

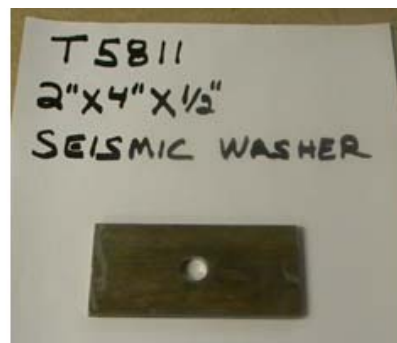


**UUT-2x  
(40LA-3000A)**

## UNIT UNDER TEST (UUT) SUMMARY SHEET



**Mounting Details:** Rigid floor mount with 6 - 1/2" diameter grade 5 bolts and 2x4x0.25" A36 plate



Use seismic washer at  
all six anchor bolt locations



**Manufacturer:** GE

**Product Line:** Automatic Transfer Switch

**Component:** ZT3-3000

**UUT Function:** Manual/Automatic power switching from utility power to emergency power.

**UUT Description:** 3000A 3-Pole Automatic Transfer Switch with 3000A ZT3 Power Panel, MX350 Controller, and NEMA 3r, 4, 12 Frame Size 40LA enclosure.

**Test Location:** Clark Dynamics Testing Labs, PA

**Test Date:** December 2012

### UUT PROPERTIES

Weight (lb)	Dimensions (inches)			Natural Frequency (Hz)		
	Width	Depth	Height	FB	SS	V
1,295	38.8	41.5	90.0	19.7	14.7	>33.3

### SEISMIC TEST PARAMETERS

Building Code / Test Criteria	S <sub>DS</sub> (g)	z / h	I <sub>p</sub>	A <sub>FLX-H</sub> (g)	A <sub>RIG-H</sub> (g)	A <sub>FLX-V</sub> (g)	A <sub>RIG-V</sub> (g)
CBC 2016 / ICC-ES AC156	2.13	1.0	1.5	3.40	2.55	1.68	0.68

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-3  
(14C-400A)**

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



**Mounting Details:** Rigid floor mounted with 4 - 1/2" diameter grade 5 bolts



**Manufacturer:** GE

**Product Line:** Vertical Bypass Switch

**Component:** ZBTS-B0-400

**UUT Function:** Manual/Automatic power switching from utility power to emergency power.

**UUT Description:** 400A 3-Pole Vertical Bypass Switch with 400A ZBTS-B0 Power Panel, MX250 Controller, and NEMA 1 Frame Size F14C enclosure.

**Test Location:** Clark Dynamics Testing Labs, PA

**Test Date:** December 2006

**UUT PROPERTIES**

Weight (lb)	Dimensions (inches)			Natural Frequency (Hz)		
	Width	Depth	Height	FB	SS	V
875	30.0	28.5	86.0	10.2	7.0	>33.3

**SEISMIC TEST PARAMETERS**

Building Code / Test Criteria	S <sub>DS</sub> (g)	z / h	I <sub>p</sub>	A <sub>FLX-H</sub> (g)	A <sub>RIG-H</sub> (g)	A <sub>FLX-V</sub> (g)	A <sub>RIG-V</sub> (g)
CBC 2016 / ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	1.34	0.54

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-4  
(65B-4000A)**

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



**Mounting Details:** Rigid floor mounted with 8 - 1/2" diameter grade 5 bolts



**Manufacturer:** GE

**Product Line:** Vertical Bypass Switch

**Component:** ZBTS-B0-4000

**UUT Function:** Manual/Automatic power switching from utility power to emergency power.

**UUT Description:** 4000A 3-Pole Vertical Bypass Switch with 4000A ZBTS-B0 Power Panel, MX250 Controller, and NEMA 1 Frame Size 65B enclosure.

**Test Location:** Clark Dynamics Testing Labs, PA

**Test Date:** December 2006

**UUT PROPERTIES**

Weight (lb)	Dimensions (inches)			Natural Frequency (Hz)		
	Width	Depth	Height	FB	SS	V
6,000	54.0	81.0	90.0	21.0	8.6	>33.3

**SEISMIC TEST PARAMETERS**

Building Code / Test Criteria	S <sub>DS</sub> (g)	z / h	I <sub>p</sub>	A <sub>FLX-H</sub> (g)	A <sub>RIG-H</sub> (g)	A <sub>FLX-V</sub> (g)	A <sub>RIG-V</sub> (g)
CBC 2016 / ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	1.34	0.54

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-5  
(64B-1200A)**

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



**Mounting Details:** Rigid floor mounted with 4 - 1/2" diameter grade 5 bolts



**Manufacturer:** GE

**Product Line:** Horizontal Bypass Switch

**Component:** ZBTS-B1-1200

**UUT Function:** Manual/Automatic power switching from utility power to emergency power.

**UUT Description:** 1200A 3-Pole Horizontal Bypass Switch with 1200A ZBTS-B1 Power Panel, MX250 Controller, and NEMA 1 Frame Size 64B enclosure.

**Test Location:** Clark Dynamics Testing Labs, PA

**Test Date:** May 2010

**UUT PROPERTIES**

Weight (lb)	Dimensions (inches)			Natural Frequency (Hz)		
	Width	Depth	Height	FB	SS	V
1,334	42.0	36.0	80.0	9.0	8.9	>33.3

**SEISMIC TEST PARAMETERS**

Building Code / Test Criteria	S <sub>DS</sub> (g)	z / h	I <sub>p</sub>	A <sub>FLX-H</sub> (g)	A <sub>RIG-H</sub> (g)	A <sub>FLX-V</sub> (g)	A <sub>RIG-V</sub> (g)
CBC 2016 / ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	1.34	0.54

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-6  
(65B-3000A)**

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



**Mounting Details:** Rigid floor mounted with 8 - 1/2" diameter grade 5 bolts and 3x7x0.5" A36 plate



**Manufacturer:** GE

**Product Line:** Horizontal Bypass Switch

**Component:** ZBTS-B1-3000

**UUT Function:** Manual/Automatic power switching from utility power to emergency power.

**UUT Description:** 3000A 4-Pole Horizontal Bypass Switch with 3000A ZBTS-B1 Power Panel, MX250 Controller, and NEMA 1 Frame Size 65B enclosure.

**Test Location:** Clark Dynamics Testing Labs, PA

**Test Date:** May 2010

**UUT PROPERTIES**

Weight (lb)	Dimensions (inches)			Natural Frequency (Hz)		
	Width	Depth	Height	FB	SS	V
5,747	46.1	64.6	80.0	17.2	15.5	24.1

**SEISMIC TEST PARAMETERS**

Building Code / Test Criteria	S <sub>DS</sub> (g)	z / h	I <sub>p</sub>	A <sub>FLX-H</sub> (g)	A <sub>RIG-H</sub> (g)	A <sub>FLX-V</sub> (g)	A <sub>RIG-V</sub> (g)
CBC 2016 / ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	1.34	0.54

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.