



DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION  
FACILITIES DEVELOPMENT DIVISION

APPLICATION FOR HCAI SPECIAL SEISMIC  
CERTIFICATION PREAPPROVAL (OSP)

OFFICE USE ONLY

APPLICATION #: OSP-0035

HCAI Special Seismic Certification Preapproval (OSP)

Type:  New  Renewal

Manufacturer Information

Manufacturer: ABB Inc.

Manufacturer's Technical Representative: Tiwari Dhirendra

Mailing Address: 830 W 40th Street, Chicago, IL 60609

Telephone: (860) 969-8494

Email: Dhirendra.Tiwari@us.abb.com

Product Information

Product Name: Emergency and Standby Power Systems

Product Type: Automatic Transfer Switches

Product Model Number: See certified product line matrices

General Description: Automatic and By-pass Transfer Switches, which are manual, automatic, or a combination of both.

Mounting Description: Rigid, Floor Mounted

Tested Seismic Enhancements: Seismic enhancements made to the test units and/or modifications required to address anomalies during the tests shall be incorporated into the production units.

Applicant Information

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

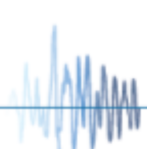
Contact Person: Travis Soppe

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

Telephone: (208) 342-5989

Email: tsoppe@wegai.com

Title: SE





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

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

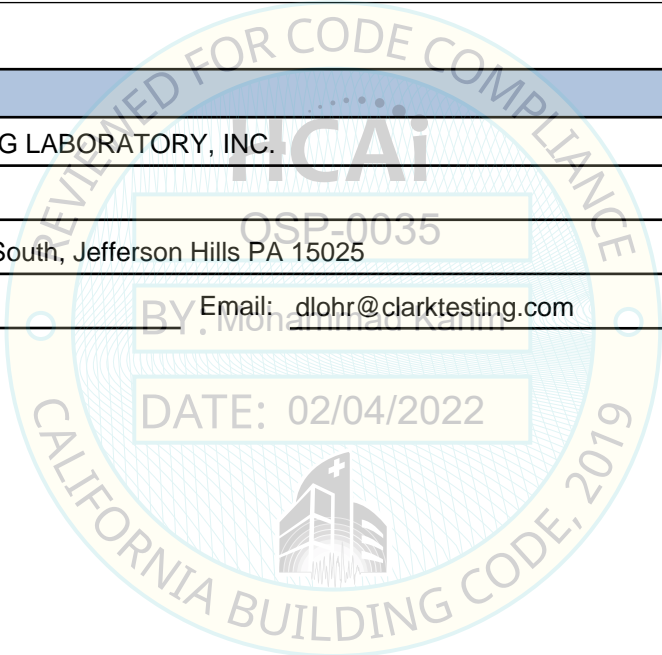
Company Name: W.E. GUNDY & ASSOCIATES INC.  
Name: Travis Soppe California License Number: S6115  
Mailing Address: P.O. Box 9121, Boise, ID 83707  
Telephone: (208) 342-5989 Email: tsoppe@wegai.com

**Certification Method**

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

**Testing Laboratory**

Company Name: CLARK TESTING LABORATORY, INC.  
Contact Person: Devon Lohr  
Mailing Address: 1801 Route 51 South, Jefferson Hills PA 15025  
Telephone: (412) 387-1027 Email: dlohr@clarktesting.com





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

**Seismic Parameters**

Design Basis of Equipment or Components ( $F_p/W_p$ ) = 1.5

SDS (Design spectral response acceleration at short period, g) = 2.0

$a_p$  (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

Natural frequencies (Hz) = See Attachment

Overall dimensions and weight = See Attachment

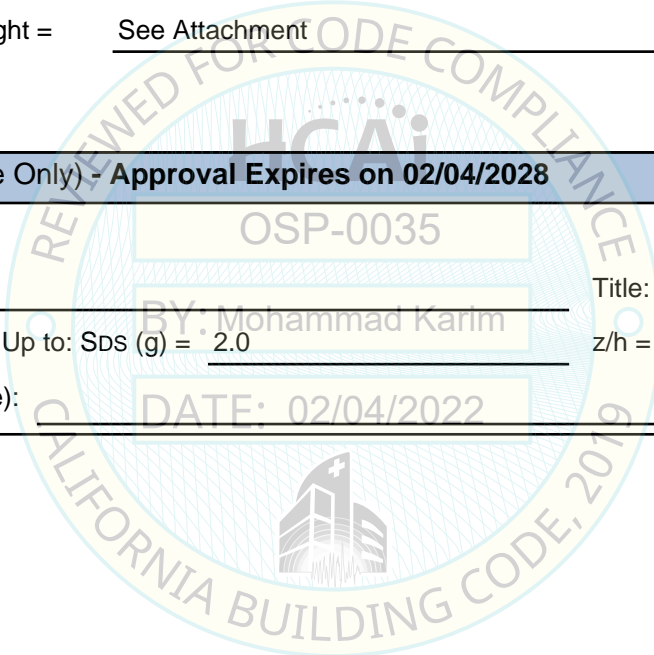
**HCAI Approval (For Office Use Only) - Approval Expires on 02/04/2028**

Date: 2/4/2022

Name: Mohammad Karim Title: Supervisor, Health Facilities

Special Seismic Certification Valid Up to: SDS (g) = 2.0 z/h = 1

Condition of Approval (if applicable): DATE: 02/04/2022



## ABB INC. (FORMERLY 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 <sub>x</sub> -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 <sub>x</sub> -6

**Notes:**

<sup>1</sup> All components are manufactured by ABB Inc. (formerly 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.

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

<sup>3</sup> Subscript indicates the test report in which the units were qualified:

x - T4761

**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

## ABB INC. (FORMERLY 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, 3R, 4, 12	30.0	28.5	86.0	770 - 875	extrapolated
ZBTS-B0-400	400	F14C	3	1	30.0	28.5	86.0	875	UUT <sub>w</sub> -3
ZBTSCT-B0-100 to 400	100 - 400	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-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, 3R, 4, 12	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, 3R, 4, 12	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, 3R, 4, 12	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, 3R, 4, 12	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, 3R, 4, 12	47.5 - 54.0	81.0	90.0	4660 - 6400	interpolated
ZBTS-B0-4000	4000	65B	4	3R, 4, 12	54.0	81.0	90.0	6406	UUT <sub>z</sub> -6

**Notes:**

<sup>1</sup> All components are manufactured by ABB Inc. (formerly 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.

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

<sup>3</sup> Subscript indicates the test report in which the units were qualified:

w - T4343, z - JID: 19-01143-1

**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



# ABB INC. (FORMERLY 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 <sub>w</sub> -1
ZSAC-040	400	63L	2 / 3 / 4	1, 3R, 4, 12	40.0	20.0	74.0	410 - 538	interpolated
ZSAC-060	600	63L	2 / 3 / 4	1, 3R, 4, 12	40.0	20.0	74.0	410 - 538	interpolated
ZSAC-060	600	63L	4	1	40.0	20.0	74.0	538	UUT <sub>y</sub> -1
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
ZSAC-080	800	63L	2 / 3 / 4	1, 3R, 4, 12	40.0	20.0	74.0	460 - 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
ZSAC-100	1000	63L	2 / 3 / 4	1, 3R, 4, 12	40.0	20.0	74.0	500 - 590	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
ZSAC-120	1200	63L	2 / 3 / 4	1, 3R, 4, 12	40.0	20.0	74.0	500 - 590	interpolated
ZT3-1000	1000	40LA	3	1	36.5	23.5	90.0	917	UUT <sub>y</sub> -1
ZT3-1000	1000	40LA	2 / 3 / 4	1, 3R, 4, 12	36.5-38.8	23.5	90.0	867-1062	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.

<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.

<sup>4</sup> Subscript indicates the test report in which the units were qualified:  
w - T4343, x - T4761, y - JID: 5050, z - JID: 19-01143-1

**ZT and Z1 - Transfer Switch Models**

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

**ZS and ZG - Transfer Switch Models**

- ZSAO - Open Transition, OXCO1 Controller
- ZSAD - Delay Transition, OXCO1 Controller
- ZSAC - Closed Transition, OXCO1 Controller
- ZGAO - Open Transition, OXCO1 Controller
- ZGAD - Delay Transition, OXCO1 Controller

## ABB INC. (FORMERLY 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		
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
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
ZGAO/ZGAD-160	1600	R5	3 / 4	1, 3R, 4, 12	36.0	48.0	90.0	1375 - 1540	interpolated
ZSAO/ZSAD/ZSAC-160	1600	R5	3 / 4	1, 3R, 4, 12	36.0	48.0	90.0	1375 - 1540	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
ZGAO/ZGAD-200	2000	R5	3 / 4	1, 3R, 4, 12	36.0	48.0	90.0	1375 - 1540	interpolated
ZSAO/ZSAD/ZSAC-200	2000	R5	3 / 4	1, 3R, 4, 12	36.0	48.0	90.0	1375 - 1540	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
ZGAO/ZGAD-260	2600	R5	3 / 4	1, 3R, 4, 12	36.0	48.0	90.0	1375 - 1540	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.

<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.

<sup>4</sup> Subscript indicates the test report in which the units were qualified:  
w - T4343, x - T4761, y - JID: 5050, z - JID: 19-01143-1

**ZT and Z1 - Transfer Switch Models**

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

**ZS and ZG - Transfer Switch Models**

- ZSAO - Open Transition, OXCO1 Controller
- ZSAD - Delay Transition, OXCO1 Controller
- ZSAC - Closed Transition, OXCO1 Controller
- ZGAO - Open Transition, OXCO1 Controller
- ZGAD - Delay Transition, OXCO1 Controller

## ABB INC. (FORMERLY 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		
ZSAO/ZSAD/ZSAC-260	2600	R5	3 / 4	1, 3R, 4, 12	36.0	48.0	90.0	1375 - 1540	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 <sub>y</sub> -2
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
ZGAO/ZGAD-300	3000	R5	3 / 4	1, 3R, 4, 12	36.0	48.0	90.0	1375 - 1540	interpolated
ZSAO/ZSAD/ZSAC-300	3000	R5	3 / 4	1, 3R, 4, 12	36.0	48.0	90.0	1375 - 1540	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 <sub>w</sub> -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.

<sup>4</sup> Subscript indicates the test report in which the units were qualified:  
v - 21-00870 Rev.0, w - T4343, y - JID: 5050

ZT and Z1 - Transfer Switch Models

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

ZS and ZG - Transfer Switch Models

- ZSAO - Open Transition, OXCO1 Controller
- ZSAD - Delay Transition, OXCO1 Controller
- ZSAC - Closed Transition, OXCO1 Controller
- ZGAO - Open Transition, OXCO1 Controller
- ZGAD - Delay Transition, OXCO1 Controller



**ABB INC. (FORMERLY GE) AUTOMATIC AND BYPASS TRANSFER SWITCH  
BRANDED PRODUCT LINE SEISMIC CERTIFICATION MATRICES**



**ABB Identification**



**Caterpillar Identification**



**Representative UUT**

**HORIZONTAL BYPASS TRANSFER SWITCH PRODUCT LINE**

ZBTS-B1-1200	CBTS-B1-1200	UUT <sub>x</sub> -5
ZBTS-B1/ZBTS-D-B1/ZBTSCT-B1/Z30/Z3D/Z3C-600	CBTS-B1/CBTS-D-B1/CBTSCT-B1/C30/C3D/C3C-600	interpolated
ZBTS-B1/ZBTS-D-B1/ZBTSCT-B1/Z30/Z3D/Z3C-800	CBTS-B1/CBTS-D-B1/CBTSCT-B1/C30/C3D/C3C-800	interpolated
ZBTS-B1/ZBTS-D-B1/ZBTSCT-B1/Z30/Z3D/Z3C-1000	CBTS-B1/CBTS-D-B1/CBTSCT-B1/C30/C3D/C3C-1000	interpolated
ZBTS-B1/ZBTS-D-B1/ZBTSCT-B1/Z30/Z3D/Z3C-1200	CBTS-B1/CBTS-D-B1/CBTSCT-B1/C30/C3D/C3C-1200	interpolated
ZBTS-B1/ZBTS-D-B1/ZBTSCT-B1/Z30/Z3D/Z3C-1600	CBTS-B1/CBTS-D-B1/CBTSCT-B1/C30/C3D/C3C-1600	interpolated
ZBTS-B1/ZBTS-D-B1/ZBTSCT-B1/Z30/Z3D/Z3C-2000	CBTS-B1/CBTS-D-B1/CBTSCT-B1/C30/C3D/C3C-2000	interpolated
ZBTS-B1/ZBTS-D-B1/ZBTSCT-B1/Z30/Z3D/Z3C-2600	CBTS-B1/CBTS-D-B1/CBTSCT-B1/C30/C3D/C3C-2600	interpolated
ZBTS-B1/ZBTS-D-B1/ZBTSCT-B1/Z30/Z3D/Z3C-3000	CBTS-B1/CBTS-D-B1/CBTSCT-B1/C30/C3D/C3C-3000	interpolated
ZBTS-B1-3000	CBTS-B1-3000	UUT <sub>x</sub> -6

**VERTICAL BYPASS TRANSFER SWITCH PRODUCT LINE**

ZBTS-B0/ZBTS-D-B0/Z20/Z2D/Z2C-100 to 400	CBTS-B0/CBTS-D-B0/C20/C2D/C2C-100 to 400	extrapolated
ZBTS-B0-400	CBTS-B0-400	UUT <sub>w</sub> -3
ZBTSCT-B0-100 to 400	CBTSCT-B0-100 to 400	interpolated
ZBTS-B0/ZBTS-D-B0/ZBTSCT-B0/Z20/Z2D/Z2C-600	CBTS-B0/CBTS-D-B0/CBTSCT-B0/C20/C2D/C2C-600	interpolated
ZBTS-B0/ZBTS-D-B0/ZBTSCT-B0/Z20/Z2D/Z2C-800	CBTS-B0/CBTS-D-B0/CBTSCT-B0/C20/C2D/C2C-800	interpolated
ZBTS-B0/ZBTS-D-B0/ZBTSCT-B0/Z20/Z2D/Z2C-1000	CBTS-B0/CBTS-D-B0/CBTSCT-B0/C20/C2D/C2C-1000	interpolated
ZBTS-B0/ZBTS-D-B0/ZBTSCT-B0/Z20/Z2D/Z2C-1200	CBTS-B0/CBTS-D-B0/CBTSCT-B0/C20/C2D/C2C-1200	interpolated
ZBTS-B0/ZBTS-D-B0/ZBTSCT-B0/Z20/Z2D/Z2C-1600	CBTS-B0/CBTS-D-B0/CBTSCT-B0/C20/C2D/C2C-1600	interpolated
ZBTS-B0/ZBTS-D-B0/ZBTSCT-B0/Z20/Z2D/Z2C-2000	CBTS-B0/CBTS-D-B0/CBTSCT-B0/C20/C2D/C2C-2000	interpolated
ZBTS-B0/ZBTS-D-B0/ZBTSCT-B0/Z20/Z2D/Z2C-2600	CBTS-B0/CBTS-D-B0/CBTSCT-B0/C20/C2D/C2C-2600	interpolated
ZBTS-B0/ZBTS-D-B0/ZBTSCT-B0/Z20/Z2D/Z2C-3000	CBTS-B0/CBTS-D-B0/CBTSCT-B0/C20/C2D/C2C-3000	interpolated
ZBTS-B0/ZBTS-D-B0/ZBTSCT-B0/Z20/Z2D/Z2C-4000	CBTS-B0/CBTS-D-B0/CBTSCT-B0/C20/C2D/C2C-4000	interpolated
ZBTS-B0-4000	CBTS-B0-4000	UUT <sub>z</sub> -6

**Note:** The seismically certified ABB Inc. automatic transfer switches are brand labeled and sold by Caterpillar. This table provides the link between the seismically certified ABB Automatic Transfer Switch product line and the associated brand labeled Caterpillar product offerings.

**ABB INC. (FORMERLY GE) AUTOMATIC AND BYPASS TRANSFER SWITCH  
BRANDED PRODUCT LINE SEISMIC CERTIFICATION MATRICES**



**ABB Identification**



**Caterpillar Identification**



**Representative UUT**



**AUTOMATIC TRANSFER SWITCH PRODUCT LINE**

ZTG-A0/ZTGD-A0-600	CTG-A0/CTGD-A0-600	extrpolated
ZTG-A0-600	CTG-A0-600	UUT <sub>w</sub> -1
ZTS-B0/ZTSD-B0/ZTSCT-B0/Z1O/Z1D/Z1C-600	CTS-B0/CTSD-B0/CTSCT-B0/C1O/C1D/C1C-600	interpolated
ZSAC-040	CSAC-040	extrapolated
ZSAC-060	CSAC-060	interpolated
ZTG-A0/ZTGD-A0-800	CTG-A0/CTGD-A0-800	interpolated
ZTS-B0/ZTSD-B0/ZTSCT-B0/Z1O/Z1D/Z1C-800	CTS-B0/CTSD-B0/CTSCT-B0/C1O/C1D/C1C-800	interpolated
ZSAC-080	CSAC-080	interpolated
ZTG-A0/ZTGD-A0-1000	CTG-A0/CTGD-A0-1000	interpolated
ZTS-B0/ZTSD-B0/ZTSCT-B0/Z1O/Z1D/Z1C-1000	CTS-B0/CTSD-B0/CTSCT-B0/C1O/C1D/C1C-1000	interpolated
ZSAC-100	CSAC-100	interpolated
ZTG-A0/ZTGD-A0-1200	CTG-A0/CTGD-A0-1200	interpolated
ZTS-B0/ZTSD-B0/ZTSCT-B0/Z1O/Z1D/Z1C-1200	CTS-B0/CTSD-B0/CTSCT-B0/C1O/C1D/C1C-1200	interpolated
ZSAC-120	CSAC-120	interpolated
ZT3-1000	CT3-1000	UUT <sub>y</sub> -1
ZT3-1000	CT3-1000	interpolated
ZT3-1200	CT3-1200	interpolated
ZT3-1600	CT3-1600	interpolated
ZTG-A4/ZTGD-A4-1600	CTG-A4/CTGD-A4-1600	interpolated
ZTS-B0/ZTSD-B0/ZTSCT-B0/Z1O/Z1D/Z1C-1600	CTS-B0/CTSD-B0/CTSCT-B0/C1O/C1D/C1C-1600	interpolated
ZTS-B4/ZTSD-B4/ZTSCT-B4/Z4O/Z4D/Z4C-1600	CTS-B4/CTSD-B4/CTSCT-B4/C4O/C4D/C4C-1600	interpolated
ZGAO/ZGAD-160	CGAO/CGAD-160	interpolated
ZSAO/ZSAD/ZSAC-160	CSAO/CSAD/CSAC-160	interpolated
ZTG-A4/ZTGD-A4-2000	CTG-A4/CTGD-A4-2000	interpolated
ZTS-B0/ZTSD-B0/ZTSCT-B0/Z1O/Z1D/Z1C-2000	CTS-B0/CTSD-B0/CTSCT-B0/C1O/C1D/C1C-2000	interpolated

**Note:** The seismically certified ABB Inc. automatic transfer switches are brand labeled and sold by Caterpillar. This table provides the link between the seismically certified ABB Automatic Transfer Switch product line and the associated brand labeled Caterpillar product offerings.

**ABB INC. (FORMERLY GE) AUTOMATIC AND BYPASS TRANSFER SWITCH  
BRANDED PRODUCT LINE SEISMIC CERTIFICATION MATRICES**



<b>ABB Identification</b> 	<b>Caterpillar Identification</b> 	<b>Representative UUT</b>
ZT3-2000	CT3-2000	interpolated
ZTS-B4/ZTSD-B4/ZTSCT-B4/Z4O/Z4D/Z4C-2000	CTS-B4/CTSD-B4/CTSCT-B4/C4O/C4D/C4C-2000	interpolated
ZGAO/ZGAD-200	CGAO/CGAD-200	interpolated
ZSAO/ZSAD/ZSAC-200	CSAO/CSAD/CSAC-200	interpolated
ZTG-A4/ZTGD-A4-2600	CTG-A4/CTGD-A4-2600	interpolated
ZT3-2600	CT3-2600	interpolated
ZGAO/ZGAD-260	CGAO/CGAD-260	interpolated
ZSAO/ZSAD/ZSAC-260	CSAO/CSAD/CSAC-260	interpolated
ZTG-A4/ZTGD-A4-3000	CTG-A4/CTGD-A4-3000	interpolated
ZT3-3000	CT3-3000	interpolated
ZT3-3000	CT3-3000	UUT <sub>y</sub> -2
ZTS-B0/ZTSD-B0/ZTSCT-B0/Z1O/Z1D/Z1C-3000	CTS-B0/CTSD-B0/CTSCT-B0/C1O/C1D/C1C-3000	interpolated
ZTS-B4/ZTSD-B4/ZTSCT-B4/Z4O/Z4D/Z4C-3000	CTS-B4/CTSD-B4/CTSCT-B4/C4O/C4D/C4C-3000	interpolated
ZGAO/ZGAD-300	CGAO/CGAD-300	interpolated
ZSAO/ZSAD/ZSAC-300	CSAO/CSAD/CSAC-300	interpolated
ZTS-B0/ZTSD-B0/ZTSCT-B0/Z1O/Z1D/Z1C-4000	CTS-B0/CTSD-B0/CTSCT-B0/C1O/C1D/C1C-4000	interpolated
ZTS-B0-4000	CTS-B0-4000	UUT <sub>w</sub> -2

**Note:** The seismically certified ABB Inc. automatic transfer switches are brand labeled and sold by Caterpillar. This table provides the link between the seismically certified ABB Automatic Transfer Switch product line and the associated brand labeled Caterpillar product offerings.

**ABB INC. (FORMERLY GE) AUTOMATIC AND BYPASS TRANSFER SWITCH  
CERTIFIED SUBCOMPONENT MATRIX**

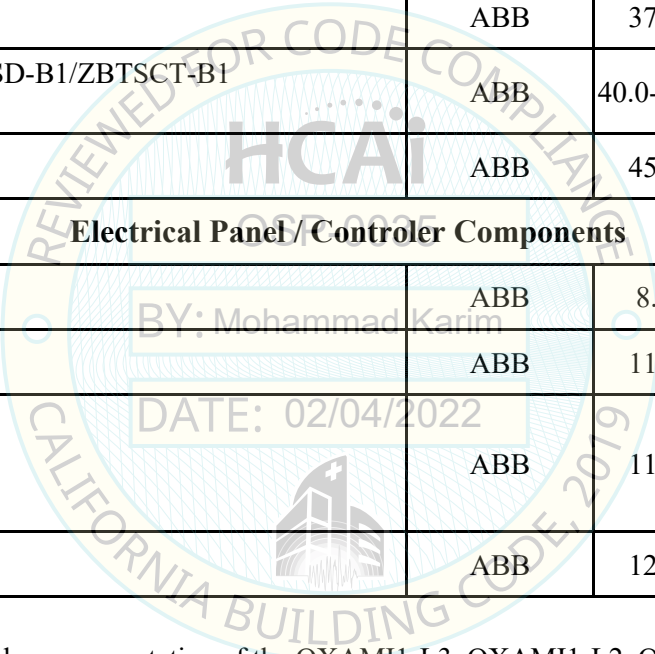


Subcomponent ID Number	Description	Manufacturer	General Dimensions (in)			Weight (lbs)	Representative UUT
			Width	Depth	Height		
<b>Automatic Transfer Switch Power Panel Assembly</b>							
50C-2034-600	600A ZTG-A0	ABB	25.2	12.0	36.3	80	UUT <sub>w</sub> -1
50C-1100-600	600 ZSAC	ABB	25.2	12.0	36.3	230	UUT <sub>v</sub> -1
50C-1100-400/1200	400-1200A ZSAC-OXCO1	ABB	21.6-27.4	12.0	36.3	230-250	interpolated
50C-1050-1600/3000	1600-3000A ZTG-A4/ZTGD-A4 1600-3000A ZTS-B4/ZTSD-B4/ZTSCT-B4/Z4O/Z4D/Z4C 1600-3000A ZGAO/ZGAD/ZSAO/ZSAD/ZSAC-OXCO1	ABB	32.3	34.1	25.3	410-463	interpolated
23C-4001-1000/3000	1000-3000A ZT3	ABB	28.9	14.6	28.6	450	UUT <sub>y</sub> -1/UUT <sub>y</sub> -2
50C-2005-1600/3000	1600-3000A ZTG-A0/ZTGD-A0 1600-3000A ZTS-B0/ZTSD-B0/ZTSCT-B0/Z1O/Z1D/Z1C	ABB	24.8-30.3	28.6	30.5	365-690	interpolated
50C-2030-4000	4000A ZTS-B0/ZTSD-B0/ZTSCT-B0/Z1O/Z1D/Z1C	ABB	32.3-38.8	31.6	30.5	820-1045	interpolated
50C-2030-4000	4000A ZTS-B0	ABB	38.8	31.6	30.5	1045	UUT <sub>w</sub> -2
<b>Vertical Bypass Power Panel Assembly</b>							
50C-2036-100/400	100-400A ZBTS-B0/ZBTSD-B0/ZBTSCT-B0 100-400A Z20/Z2D/Z2C	ABB	25.2	28.0	45.3	310-380	extrapolated
50C-2036-400	400A ZBTS-B0	ABB	25.2	28.0	45.3	380	UUT <sub>w</sub> -3
50C-2022-600/1200	600-1200A ZBTS-B0/ZBTSD-B/ZBTSCT-B0 600-1200A Z20/Z2D/Z2C	ABB	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	ABB	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	ABB	47.5-54.0	80.0	89.9	4310-5510	interpolated
50C-2031-4000	4000A ZBTS-B0	ABB	54.0	80.0	89.9	5510	UUT <sub>z</sub> -6

**ABB INC. (FORMERLY GE) AUTOMATIC AND BYPASS TRANSFER SWITCH  
CERTIFIED SUBCOMPONENT MATRIX**



Subcomponent ID Number	Description	Manufacturer	General Dimensions (in)			Weight (lbs)	Representative UUT
			Width	Depth	Height		
<b>Horizontal Bypass Power Panel Assembly</b>							
50C-2048-600-1200	600-1200A ZBTS-B1/ZBTSD-B1/ZBTSCT-B1 600-1200A Z30/Z3D/Z3C	ABB	32.5-37.5	41.2	38.6	660-738	extrapolated
50C-2048-1200	1200A ZBTS-B1	ABB	37.5	41.2	38.6	738	UUT <sub>x</sub> -5
50C-2042-1600-3000	1600-3000A ZBTS-B1/ZBTSD-B1/ZBTSCT-B1 600-1200A Z30/Z3D/Z3C	ABB	40.0-45.5	63.0	79.5	2870-3225	interpolated
50C-2042-3000	3000A ZBTS-B1	ABB	45.5	63.0	79.5	3225	UUT <sub>x</sub> -6
<b>Electrical Panel/ Controller Components</b>							
OXCO1 <sup>1</sup>	Controller and CPU	ABB	8.4	4.5	6.6	2.4	UUT <sub>y</sub> -1
MX150	Controller and CPU	ABB	11.0	4.0	14.0	12.0	UUT <sub>w</sub> -1/UUT <sub>y</sub> -1
MX250	Controller and CPU	ABB	11.0	4.0	14.0	12.0	UUT <sub>w</sub> -2/UUT <sub>w</sub> -3 UUT <sub>z</sub> -6 UUT <sub>x</sub> -5/UUT <sub>x</sub> -6
MX350	Controller and CPU	ABB	12.0	4.0	10.0	10.0	UUT <sub>y</sub> -2



**Notes:**  
<sup>1</sup>OXCO1 is the primary controller identification number representative of the OXAMI1-L3, OXAMI1-L2, OXBMI1-L3, OXBMI1-L4, OXAMI1-L4 controller configurations with varied software.



**UUT<sub>v</sub>-1  
(63L 600A)**

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



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



**Manufacturer:** ABB INC. (formerly GE)

**Product Line:** Automatic Transfer Switch

**Component:** ZSAC-060

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

**UUT Description:** 600A 3-Pole Automatic Transfer Switch with 600A ZSAC Power Panel, OXCO1 Controller, and NEMA 1 Frame Size 63L enclosure.

**Test Location:** Clark Testing, PA - Report #JID 21-00870 Rev. 0

**Test Date:** September 2021

**UUT PROPERTIES**

Weight (lb)	Dimensions (inches)			Natural Frequency (Hz)		
	Width	Depth	Height	FB	SS	V
538	40.0	20.0	74.0	10.3	10.3	26.6

**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 2019 / ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	-	-
	2.50	0.0	1.5	-	-	1.67	0.67

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. Seismic enhancements made to the test unit shall be incorporated into the production units.

**UUT<sub>w</sub>-1  
(F14 600A)**

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



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



**Manufacturer:** ABB INC. (formerly 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 Testing, PA - Report #T4343

**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 2019 / ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	1.34	0.54

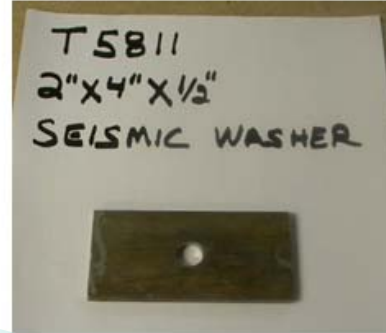
Note: The unit was full of contents during testing and remained functional before and after the ICC-ES AC156 test. The unit maintained structural integrity during and after the ICC-ES AC156 Test.

**UUT<sub>y</sub>-1  
(40LA-1000A)**

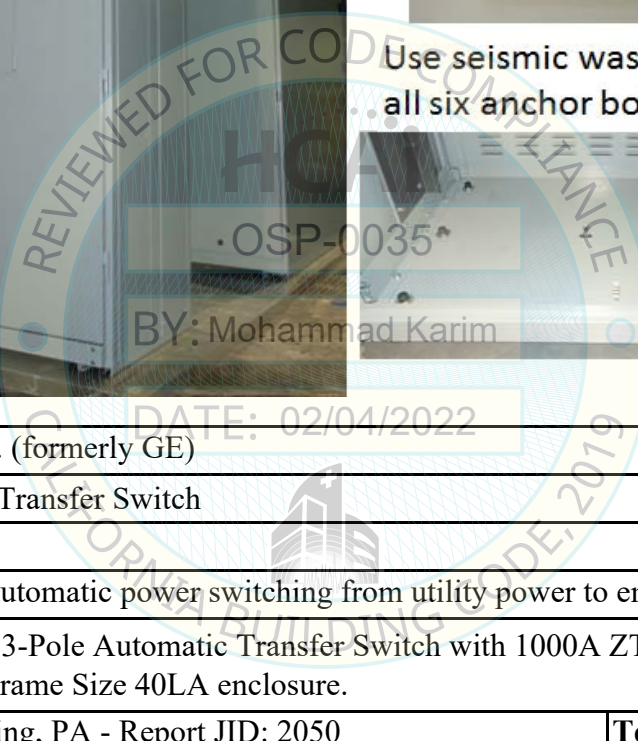
**UNIT UNDER TEST (UUT)  
SUMMARY SHEET**



**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:** ABB INC. (formerly 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 Testing, PA - Report JID: 2050

**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 2019 / ICC-ES AC156	2.13	1.0	1.5	3.40	2.55	-	-
	2.50	0.0	1.5	-	-	1.67	0.67

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<sub>w</sub>-2  
(65L-4000A)**

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



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



**Manufacturer:** ABB INC. (formerly 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 Testing, PA - Report #T4343

**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 2019 / ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	1.34	0.54

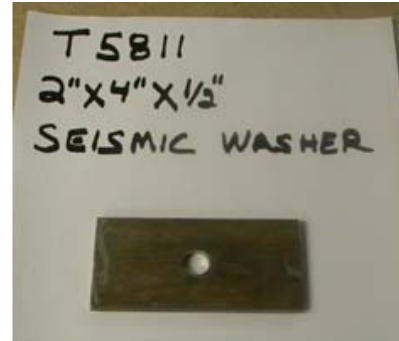
Note: The unit was full of contents during testing and remained functional before and after the ICC-ES AC156 test. The unit maintained structural integrity during and after the ICC-ES AC156 Test.

**UUT<sub>y</sub>-2  
(40LA-3000A)**

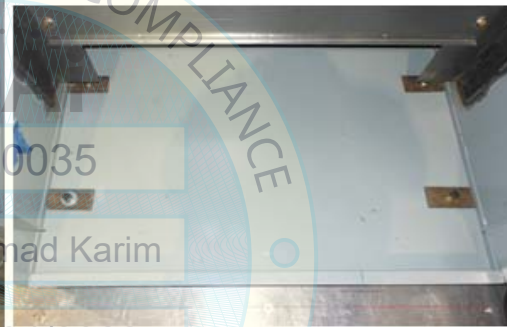
**UNIT UNDER TEST (UUT)  
SUMMARY SHEET**



**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



REVIEWED FOR CODE COMPLIANCE  
HCC  
OSP-0035  
BY: Mohammad Karim  
DATE: 02/04/2022

**Manufacturer:** ABB INC. (formerly 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 Testing, PA - Report JID: 2050

**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 2019 / ICC-ES AC156	2.13	1.0	1.5	3.40	2.55	-	-
	2.50	0.0	1.5	-	-	1.67	0.67

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<sub>w</sub>-3  
(14C-400A)**

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



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



**Manufacturer:** ABB INC. (formerly 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 Testing, PA - Report #T4343

**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 2019 / 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<sub>z</sub>-6  
(65B-4000A)**

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



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



**Manufacturer:** ABB INC. (formerly 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 4-Pole Vertical Bypass Switch with 4000A ZBTS-B0 Power Panel, MX250 Controller, and NEMA 3R,4,12 Frame Size 65B enclosure.

**Test Location:** Clark Testing, PA - Report JID 19-01143-1

**Test Date:** September 2019

**UUT PROPERTIES**

Weight (lb)	Dimensions (inches)			Natural Frequency (Hz)		
	Width	Depth	Height	FB	SS	V
6,406	54.0	81.0	90.0	20.0	4.7	17.9

**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 2019 / ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	-	-
	2.50	0.0	1.5	-	-	1.67	0.67

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<sub>x</sub>-5  
(64B-1200A)**

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



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



**Manufacturer:** ABB INC. (formerly 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 Testing, PA - Report #T4761

**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 2019 / 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<sub>x</sub>-6  
(65B-3000A)**

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



**Mounting Details:** Rigid floor mounted with 4 - 1/2" diameter grade 5 bolts and 3x7x0.5" A36 plate



**Manufacturer:** ABB INC. (formerly 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 Testing, PA - Report #T4761

**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 2019 / 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.