

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

# APPLICATION FOR HCAI SPECIAL SEISMIC CERTIFICATION PREAPPROVAL (OSP) OFFICE USE ONLY HCAI Special Seismic Certification Preapproval (OSP) APPLICATION #: OSP-0791 HCAI Special Seismic Certification Preapproval (OSP) Type: X New Renewal Manufacturer Information Manufacturer: ABB - Branded for CAT Manufacturer's Technical Representative: Dhirendra Tiwari Dhirendra Tiwari Mailing Address: 41 Woodford Ave, Plainville, CT 06062 Manufacture

Telephone: (860) 747-7935

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 produce 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: WE Gundy & Assoc	ciates, Inc								
Contact Person: Travis Soppe									
Mailing Address: PO Box 9121, Boise, ID 83707									
Telephone: (208) 342-5989	Email: tsoppe@wegai.com								

Title: President



"A healthier California where all receive equitable, affordable, and quality health care"

OSP-0791



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

California Licensed Structural Engineer Re	sponsible for the Engineering and Test Report(s)
Company Name: W.E. GUNDY & ASOCIATES INC	C.
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 X ICC-ES AC156	☐ IEEE 344 ☐ IEEE 693 ☐ NEBS 3
Other (Please Specify):	
	ORCODECO
Testing Laboratory	MB.
Company Name: CLARK TESTING LABORATOR	Y, INC.
Contact Person: Suzanne Mazon	2
Mailing Address: 1801 Route 51, Jefferson Hills P.	A 15025
Telephone: (412) 387-1001	Email: smazon@clarktesting.com
	TE: 11/27/2023
PN	
CALIFORNI	BUILDING



"A healthier California where all receive equitable, affordable, and quality health care" STATE OF CALIFORNIA – HEALTH AND HUMAN SERVICES AGENCY

OSP-0791



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

Seismi	c Parameters			
Design I	Basis of Equipment or Components	(Fp/Wp) = 1.5		
Si	DS (Design spectral response accele	eration at short period, g) = $2.0$		
ap	(Amplification factor) =	2.5		
R	o (Response modification factor) =	6.0		
Ω	0 (System overstrength factor) =	2.0		
lp	(Importance factor) =	1.5		
z/	h (Height ratio factor) =	1		
N	atural frequencies (Hz) =	See Attachment		
0	verall dimensions and weight =	See Attachment ODE		
HCAI A	pproval (For Office Use Only)	Approval Expires on 11/27/202	9 7	
Date:	11/27/2023	OSP-0791	<b>F</b>	
Name:	Mohammad Karim		Title:	Supervisor, Health Facilities
Special	Seismic Certification Valid Up to: S	ps(g) = 2.0	z/h =	1

Condition of Approval (if applicable):



"A healthier California where all receive equitable, affordable, and quality health care"

RORNIA

RI

OSP-0791

ING CODE

	CATERPILLAR HORIZONTAL BYPASS TRANSFER SWITCH CERTIFIED PRODUCT LINE MATRIX							WEGAAI W.E. GUNDY & ASSOCIATES, INC. STRUCTURAL & EARTHQUAKE ENGINEERING	
ID Number <sup>1</sup>	Ampre	-	Pole	NEMA	Enclosur	e Dimensio	ons (in)	Service	Representative
ID Number	Rating	Size <sup>2</sup>	1010	Rating	Width	Depth	Height	Weight (lbs)	UUT
CBTS-B1-1200	1200	64B	3	1	42.0	36.0	80.0	1334	UUT <sub>x</sub> -5
CBTS-B1/CBTSD-B1/CBTSCT-B1/C30/C3D/C3C-600	600	64B	3 / 4	1	39.0 - 42.0	36.0	80.0	1335 - 1640	interpolated
CBTS-B1/CBTSD-B1/CBTSCT-B1/C30/C3D/C3C-800	800	64B	3 / 4	1	39.0 - 42.0	36.0	80.0	1335 - 1640	interpolated
CBTS-B1/CBTSD-B1/CBTSCT-B1/C30/C3D/C3C-1000	1000	64B	3/4		39.0 - 42.0	36.0	80.0	1335 - 1640	interpolated
CBTS-B1/CBTSD-B1/CBTSCT-B1/C30/C3D/C3C-1200	1200	64B	3/4	YM,	39.0 - 42.0	36.0	80.0	1335 - 1640	interpolated
CBTS-B1/CBTSD-B1/CBTSCT-B1/C30/C3D/C3C-1600	1600	65B	3 / 4	1	40.0 - 46.1	64.6	80.0	4453 - 5750	interpolated
CBTS-B1/CBTSD-B1/CBTSCT-B1/C30/C3D/C3C-2000	2000	65B	3/4	1	40.0 - 46.1	64.6	80.0	4454 - 5750	interpolated
CBTS-B1/CBTSD-B1/CBTSCT-B1/C30/C3D/C3C-2600	2600	65B	394	91 1	40.0 - 46.1	64.6	80.0	4455 - 5750	interpolated
CBTS-B1/CBTSD-B1/CBTSCT-B1/C30/C3D/C3C-3000	3000	65B	3/4		40. <mark>0 - 46</mark> .1	64.6	80.0	4456 - 5750	interpolated
CBTS-B1-3000	3000	65B	4		<mark>46.1</mark>	64.6	80.0	5747	UUT <sub>x</sub> -6

Notes:

All components are manufactured by ABB and branded for Caterpillar. The part numbers listed uniquely identify the type of component, manufacturer, and material of construction for each sub-component within the tested units. The CBTS-B1/CBTSD-B1/CBTSCT-B1/C30/C3D/C3C Horizontal Bypass transfer switches are of nearly identical construction and have minor control differences listed below. VIA BUILDING CODE

Enclosures are constructed of bolted and welded carbon steel.

Subscript indicates the test report in which the units were qualified:

x - T4761

CBT AND C3 - Horizontal Bypass Switch Models

-CBTS-B1 - Open Transition with MX250 Controler

-CBTSD-B1 - Delay Transition with MX250 Controler

-CBTSCT-B1 - Closed Transition with MX250 Controler

-C30 - Open Transition with MX350 Controler

-C3D - Delay Transition with MX350 Controler

-C3C - Closed Transition with MX350 Controler

	CATERPILLAR VERTICAL BYPASS TRANSFER SWITCH CERTIFIED PRODUCT LINE MATRIX								WEGAS W.E. GUNDY & ASSOCIATES, INC. STRUCTURAL & EARTHQUAKE ENGINEERING	
ID Number <sup>1</sup>	Ampre	Frame	Pole	NEMA	Enclosure	Dimensi	ons (in)	Service	Representative	
ID Number	Rating	Size <sup>2</sup>	1010	Rating	Width	Depth	Height	Weight (lbs)	UUT	
CBTS-B0/CBTSD-B0/C20/C2D/C2C-100 to 400	100 - 400	F14C	3 / 4	1, 3R, 4, 12	30.0	28.5	86.0	770 - 875	extrapolated	
CBTS-B0-400	400	F14C	3	1	30.0	28.5	86.0	875	UUT <sub>w</sub> -3	
CBTSCT-B0-100 to 400	100 - 400	64B	3 / 4	1, 3R, 4, 12	36.0 - 40.0	28.3	90.0	1220 - 1385	interpolated	
CBTS-B0/CBTSD-B0/CBTSCT-B0/C20/C2D/C2C-600	600	64B	3/4	1, 3R, 4, 12	36.0 - 40.0	28.3	90.0	1220 - 1385	interpolated	
CBTS-B0/CBTSD-B0/CBTSCT-B0/C20/C2D/C2C-800	800	64B	3/4	1, 3R, 4, 12	40.0 - 46.0	28.3	90.0	1355 - 1640	interpolated	
CBTS-B0/CBTSD-B0/CBTSCT-B0/C20/C2D/C2C-1000	1000	64B	3 / 4	1, 3R, 4, 12	40.0 - 46.0	28.3	90.0	1355 - 1640	interpolated	
CBTS-B0/CBTSD-B0/CBTSCT-B0/C20/C2D/C2C-1200	1200	64B	3/4	1, 3R, 4, 12	40.0 - 46.0	28.3	90.0	1355 - 1640	interpolated	
CBTS-B0/CBTSD-B0/CBTSCT-B0/C20/C2D/C2C-1600	1600	65B	-3/4	1, 3R, 4, 12	<mark>40.6</mark> - 46.1	64.6	80.0	4044 - 4431	interpolated	
CBTS-B0/CBTSD-B0/CBTSCT-B0/C20/C2D/C2C-2000	2000	65B	3/4	1, 3R, 4, 12	<mark>40.6</mark> - 46.1	64.6	80.0	4044 - 4431	interpolated	
CBTS-B0/CBTSD-B0/CBTSCT-B0/C20/C2D/C2C-2600	2600	65B	3/4	1, 3R, 4, 12	<mark>40.6</mark> - 46.1	64.6	80.0	4044 - 4431	interpolated	
CBTS-B0/CBTSD-B0/CBTSCT-B0/C20/C2D/C2C-3000	3000	65B	3/4	1, 3R, 4, 12	40.6 - 46.1	64.6	80.0	4456 - 5750	interpolated	
CBTS-B0/CBTSD-B0/CBTSCT-B0/C20/C2D/C2C-4000	4000	65B	3 / 4	1, 3R, 4, 12	47.5 - 54.0	81.0	90.0	4660 - 6400	interpolated	
CBTS-B0-4000	4000	65B	4	3R, 4, 12	54.0	81.0	90.0	6406	UUT <sub>z</sub> -6	

Notes:

1 All components are manufactured by ABB and branded for Caterpillar. The part numbers listed uniquely identify the type of component, manufacturer, and material of construction for each sub-component within the tested units. The CBTS-B0/CBTSD-B0/CBTSCT-B0/C20/C2D/C2C 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.

3 Subscript indicates the test report in which the units were qualified:

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

CBT AND C2 - Vertical Bypass Switch Models

-CBTS-B0 - Open Transition with MX250 Controler

-CBTSD-B0 - Delay Transition with MX250 Controler

-CBTSCT-B0 - Closed Transition with MX250 Controler

-C20 - Open Transition with MX350 Controler

-C2D - Delay Transition with MX350 Controler

-C2C - Closed Transition with MX350 Controler

CATERPILLAR AUTOMATIC CERTIFIED PRODUCT				H	]	FABLE	3	WEGAI W.E. GUNDY & ASSOCIATES, INC. STRUCTURAL & EARTHQUAKE ENGINEERING		
ID Number <sup>1</sup>	Ampre	Frame	Pole	NEMA	Enclosu	re Dimen	sions (in)	Service	Representative	
ID Number	Rating	Size <sup>2</sup>	Fole	Rating	Width	Depth	Height	Weight (lbs)	UUT	
CTG-A0/CTGD-A0-600	600	F14	2/3/4	1, 3R, 4, 12	24.0	20.0	69.0	214 - 265	extrpolated	
CTG-A0-600	600	F14	3	1	24.0	20.0	69.0	265	UUT <sub>w</sub> -1	
CSAC-040	400	63L	2/3/4	1, 3R, 4, 12	40.0	20.0	74.0	410 - 538	interpolated	
CSAC-060	600	63L	27374	1, 3R, 4, 12	40.0	20.0	74.0	410 - 538	interpolated	
CSAC-060	600	63L	4	PM	40.0	20.0	74.0	538	UUT <sub>v</sub> -1	
CTG-A0/CTGD-A0-800	800	63L	2/3/4	1, 3R, 4, 12	40.0	20.0	74.0	460 - 490	interpolated	
CTS-B0/CTSD-B0/CTSCT-B0/C1O/C1D/C1C-800	800	63L	2/3/4	1, 3R, 4, 12	40.0	20.0	74.0	455 - 560	interpolated	
CSAC-080	800	63L	2/374	1, 3R, 4, 12	40.0	20.0	74.0	460 - 560	interpolated	
CTG-A0/CTGD-A0-1000	1000	63L	2/3/4	1, 3R, 4, 12	4 <mark>0.0</mark>	20.0	74.0	475 - 560	interpolated	
CTS-B0/CTSD-B0/CTSCT-B0/C1O/C1D/C1C-1000	1000	63L	2/3/4	1, 3R, 4, 12	4 <mark>0.0</mark>	20.0	74.0	455 - 560	interpolated	
CSAC-100	1000	63L	2/3/4	1, 3R, 4, 12	40.0	20.0	74.0	500 - 590	interpolated	
CTG-A0/CTGD-A0-1200	1200	63L	2/3/4	1, 3R, 4, 12	40.0	20.0	74.0	475 - 560	interpolated	
CTS-B0/CTSD-B0/CTSCT-B0/C10/C1D/C1C-1200	1200	63L	2/3/4	1, 3R, 4, 12	40.0	20.0	74.0	455 - 560	interpolated	
CSAC-120	1200	63L	2/3/4	1, 3R, 4, 12	40.0	20.0	74.0	500 - 590	interpolated	
CT3-1000	1000	40LA		NGI	36.5	23.5	90.0	917	UUT <sub>y</sub> -1	
CT3-1000	1000	40LA	2/3/4	1, 3R, 4, 12	36.5-38.8	23.5	90.0	867-1062	interpolated	
<ul> <li>Notes:</li> <li><sup>1</sup> All components are manufactured by ABB and branded for The part numbers listed uniquely identify the type of compon manufacturer, and material of construction for each sub-comp within the tested units.</li> <li><sup>2</sup> Enclosures are constructed of bolted and welded carbon stee</li> <li><sup>3</sup> The transfer switches are of nearly identical construction wi control differences listed to right.</li> <li><sup>4</sup> Subscript indicates the test report in which the units were qu v - 21-00870 Rev.0, w - T4343, y - JID: 5050</li> </ul>	-CTG -CTG Controll -CTS -CTS Controll -C10	CT and C1 - Transfer Switch Models -CTG-A0/A4 - Open Transition, MX150 Controller -CTGD-A0/A4 - Delay Transition, MX150 Controller -CTS-B0/B4 - Open Transition, MX250 Controller -CTSD-B0/B4 - Delay Transition, MX250 Controller -CTSCT-B0/B4 - Closed Transition, MX250 Controller -C1O/C4O - Open Transition, MX350 Controller -C1D/C4D - Delay Transition, MX350 Controller					CO1 Controller CO1 Controller XCO1 Controller CO1 Controller			

CATERPILLAR AUTOMATIC CERTIFIED PRODUCT				H	,	TABLE 3	5	WEGGAI W.E. GUNDY & ASSOCIATES, INC. STRUCTURAL & EARTHQUAKE ENGINEERING		
ID Number <sup>1</sup>	Ampre	Frame	Pole	NEMA	Enclosu	are Dimensio	ons (in)	Service	Representative	
ID Number	Rating	Size <sup>2</sup>	1010	Rating	Width	Depth	Height	Weight (lbs)	UUT	
CT3-1200	1200	40LA	2/3/4	1, 3R, 4, 12	36.5-38.8	23.5	90.0	867-1062	interpolated	
CT3-1600	1600	40LA	2/3/4	1, 3R, 4, 12	36.5-38.8	23.5	90.0	867-1062	interpolated	
CTG-A4/CTGD-A4-1600	1600	65L	2/3/4	1, 3R, 4, 12	35.5-37.5	48.0-49.0	90.0	1010 - 1480	interpolated	
CTS-B0/CTSD-B0/CTSCT-B0/C10/C1D/C1C-1600	1600	65L	2/3/4	ECI	36.0	48.0	90.0	1010 - 1190	interpolated	
CTS-B4/CTSD-B4/CTSCT-B4/C4O/C4D/C4C-1600	1600	65L	2/3/4	1, 3R, 4, 12	35.5-37.5	48.0-49.0	90.0	1010 - 1480	interpolated	
CGAO/CGAD-160	1600	R5	3/4	1, 3R, 4, 12	36.0	48.0	90.0	1375 - 1540	interpolated	
CSAO/CSAD/CSAC-160	1600	R5	3/4	1, 3R, 4, 12	36.0	48.0	90.0	1375 - 1540	interpolated	
CTG-A4/CTGD-A4-2000	2000	65L	2/374	1, 3R, 4, 12	35. <mark>5-37.</mark> 5	48.0-49.0	90.0	1010 - 1480	interpolated	
CTS-B0/CTSD-B0/CTSCT-B0/C10/C1D/C1C-2000	2000	65L	2/3/4		3 <mark>6.0</mark>	48.0	90.0	1010 - 1190	interpolated	
CT3-2000	2000	40LA	2/3/4	1, 3R, 4, 12	36.5 <mark>-38.8</mark>	23.5	90.0	867-1062	interpolated	
CTS-B4/CTSD-B4/CTSCT-B4/C4O/C4D/C4C-2000	2000	65L	2/3/4	1, 3R, 4, 12	35. <mark>5-37.</mark> 5	48.0-49.0	90.0	1010 - 1480	interpolated	
CGAO/CGAD-200	2000	R5	3/4	1, 3R, 4, 12	36.0	48.0	90.0	1375 - 1540	interpolated	
CSAO/CSAD/CSAC-200	2000	R5	3/4	1, 3R, 4, 12	36.0	48.0	90.0	1375 - 1540	interpolated	
CTG-A4/CTGD-A4-2600	2600	65L	2/3/4	1, 3R, 4, 12	35.5-37.5	48.0-49.0	90.0	1010 - 1480	interpolated	
CT3-2600	2600	40LA	2/3/4	1, 3R, 4, 12	36.5-38.8	23.5-53.5	90.0	950-1430	interpolated	
CGAO/CGAD-260	2600	R5	3/4	1, 3R, 4, 12	36.0	48.0	90.0	1375 - 1540	interpolated	
<ul> <li>Notes:</li> <li><sup>1</sup> All components are manufactured by ABB and branded for The part numbers listed uniquely identify the type of compon manufacturer, and material of construction for each sub-comp within the tested units.</li> <li><sup>2</sup> Enclosures are constructed of bolted and welded carbon stee</li> <li><sup>3</sup> The transfer switches are of nearly identical construction wi control differences listed to right.</li> <li><sup>4</sup> Subscript indicates the test report in which the units were qu v - 21-00870 Rev.0, w - T4343, y - JID: 5050</li> </ul>	-CTG -CTG Controll -CTS -CTS -CTS Controll -C10 -C1D	i-A0/A4 - C iD-A0/A4 - ler -B0/B4 - Oj D-B0/B4 - CT-B0/B4 - ler /C4O - Ope /C4O - Ope	Fer Switch Moc open Transition Delay Transition Delay Transition Delay Transition - Closed Trans en Transition, P ay Transition, S sed Transition,	n, MX150 Con ion, MX150 , MX250 Con on, MX250 Co ition, MX250 MX350 Contro MX350 Contro	ntroller -( -( troller -( ontroller -( ontroller -( oller roller	CSAO - Oper CSAD - Dela CSAC - Close CGAO - Oper	y Transition, OX ed Transition, O n Transition, OX	odels CO1 Controller CO1 Controller XCO1 Controller CO1 Controller XCO1 Controller		

CATERPILLAR AUTOMATIC TRANSFER SWITCH
<b>CERTIFIED PRODUCT LINE MATRIX</b>

		Λ					W.E. GUNDY & ASSOCIATES, INC. STRUCTURAL & EARTHQUAKE ENGINEERING		
Ampre	Frame	Dala	NEMA	Enclosu	re Dimensio	ons (in)	Service	Representative	
Rating	Size <sup>2</sup>	role	Rating	Width	Depth	Height	Weight (lbs)	UUT	
2600	R5	3 / 4	1, 3R, 4, 12	36.0	48.0	90.0	1375 - 1540	interpolated	
3000	65L	2/3/4	1, 3R, 4, 12	35.5-37.5	48.0-49.0	90.0	1010 - 1480	interpolated	
3000	40LA	2/3/4	1, 3R, 4, 12	36.5-38.8	23.5-53.5	90.0	950-1430	interpolated	
3000	40LA	COD	3R, 4, 12	38.8	41.5	90.0	1295	UUT <sub>y</sub> -2	
3000	65L	2/3/4	PM	36.0	48.0	90.0	1130 - 1415	interpolated	
3000	65L	2/3/4	1, 3R, 4, 12	35.5-37.5	48.0-49.0	90.0	1010 - 1480	interpolated	
3000	R5	3/4	1, 3R, 4, 12	36.0	48.0	90.0	1375 - 1540	interpolated	
3000	R5 (	$S_{3/4}^{0}$	1, 3R, 4, 12	36.0	48.0	90.0	1375 - 1540	interpolated	
4000	65L	2/3/4	1 d Korim	4 <mark>6.0</mark>	60.0	90.0	1595 - 2100	interpolated	
4000	65L	4		4 <mark>6.0</mark>	60.0	90.0	2100	UUT <sub>w</sub> -2	
	Ampre Rating 2600 3000 3000 3000 3000 3000 3000 4000	Ampre Rating       Frame Size <sup>2</sup> 2600       R5         3000       65L         3000       40LA         3000       65L         3000       65L         3000       65L         3000       85         3000       R5         3000       R5         3000       R5         3000       R5         3000       65L	Rating       Size <sup>2</sup> Pole         2600       R5       3/4         3000       65L       2/3/4         3000       40LA       2/3/4         3000       40LA       2/3/4         3000       65L       2/3/4         3000       65L       2/3/4         3000       65L       2/3/4         3000       R5       3/4         3000       R5       3/4         3000       R5       3/4         4000       65L       2/3/4	Ampre Rating         Frame Size <sup>2</sup> Pole         NEMA Rating           2600         R5         3 / 4         1, 3R, 4, 12           3000         65L         2 / 3 / 4         1, 3R, 4, 12           3000         40LA         2 / 3 / 4         1, 3R, 4, 12           3000         40LA         2 / 3 / 4         1, 3R, 4, 12           3000         65L         2 / 3 / 4         1, 3R, 4, 12           3000         65L         2 / 3 / 4         1, 3R, 4, 12           3000         65L         2 / 3 / 4         1, 3R, 4, 12           3000         R5         3 / 4         1, 3R, 4, 12           3000         R5         3 / 4         1, 3R, 4, 12           3000         R5         3 / 4         1, 3R, 4, 12           3000         R5         3 / 4         1, 3R, 4, 12           3000         R5         3 / 4         1, 3R, 4, 12           3000         R5         3 / 4         1, 3R, 4, 12           3000         R5         3 / 4         1, 3R, 4, 12	Ampre RatingFrame Size2PoleNEMA RatingEnclose Width2600R5 $3/4$ $1, 3R, 4, 12$ $36.0$ 3000 $65L$ $2/3/4$ $1, 3R, 4, 12$ $35.5-37.5$ $3000$ $40LA$ $2/3/4$ $1, 3R, 4, 12$ $36.5-38.8$ $3000$ $40LA$ $2/3/4$ $1, 3R, 4, 12$ $36.5-38.8$ $3000$ $40LA$ $2/3/4$ $1, 3R, 4, 12$ $36.0$ $3000$ $65L$ $2/3/4$ $1, 3R, 4, 12$ $36.0$ $3000$ $65L$ $2/3/4$ $1, 3R, 4, 12$ $36.0$ $3000$ $R5$ $3/4$ $1, 3R, 4, 12$ $36.0$ $3000$ $R5$ $3/4$ $1, 3R, 4, 12$ $36.0$ $4000$ $65L$ $2/3/4$ $1, 3R, 4, 12$ $36.0$	Ampre RatingFrame Size2PoleNEMA RatingEnclosure Dimension2600R5 $3/4$ 1, 3R, 4, 1236.048.0300065L $2/3/4$ 1, 3R, 4, 1235.5-37.548.0-49.0300040LA $2/3/4$ 1, 3R, 4, 1236.5-38.823.5-53.5300040LA $4$ $3R, 4, 12$ 38.841.5300065L $2/3/4$ 136.048.0300065L $2/3/4$ 136.048.0300065L $2/3/4$ 136.048.0300065L $2/3/4$ 1, 3R, 4, 1235.5-37.548.0-49.03000R5 $3/4$ 1, 3R, 4, 1236.048.03000R5 $3/4$ 1, 3R, 4, 1236.048.0400065L $2/3/4$ 146.060.0	Ampre RatingFrame Size2PoleNEMA RatingEnclosure Dimensions (in)2600R5 $3/4$ 1, 3R, 4, 12 $36.0$ $48.0$ $90.0$ 300065L $2/3/4$ 1, 3R, 4, 12 $35.5-37.5$ $48.0-49.0$ $90.0$ 300040LA $2/3/4$ 1, 3R, 4, 12 $36.5-38.8$ $23.5-53.5$ $90.0$ 300040LA $2/3/4$ 1, 3R, 4, 12 $36.5-38.8$ $23.5-53.5$ $90.0$ 300065L $2/3/4$ 1, 3R, 4, 12 $36.0$ $48.0$ $90.0$ 300065L $2/3/4$ 1, 3R, 4, 12 $36.0$ $48.0$ $90.0$ 3000R5 $3/4$ 1, 3R, 4, 12 $36.0$ $48.0$ $90.0$ 3000R5 $3/4$ 1, 3R, 4, 12 $36.0$ $48.0$ $90.0$ $3000$ R5 $3/4$ 1, 3R, 4, 12 $36.0$ $48.0$ $90.0$ $4000$ 65L $2/3/4$ 1, 3R, 4, 12 $36.0$ $48.0$ $90.0$	Ampre RatingFrame Size2PoleNEMA RatingEnclosure Dimensions (in)Service Weight (lbs)2600R5 $3/4$ $1, 3R, 4, 12$ $36.0$ $48.0$ $90.0$ $1375 - 1540$ 3000 $65L$ $2/3/4$ $1, 3R, 4, 12$ $35.5 - 37.5$ $48.0 - 49.0$ $90.0$ $1010 - 1480$ 3000 $40LA$ $2/3/4$ $1, 3R, 4, 12$ $36.5 - 38.8$ $23.5 - 53.5$ $90.0$ $950 - 1430$ 3000 $40LA$ $4$ $3R, 4, 12$ $38.8$ $41.5$ $90.0$ $1130 - 1415$ $3000$ $65L$ $2/3/4$ $1, 3R, 4, 12$ $35.5 - 37.5$ $48.0 - 49.0$ $90.0$ $1130 - 1415$ $3000$ $65L$ $2/3/4$ $1, 3R, 4, 12$ $36.0$ $48.0$ $90.0$ $1130 - 1415$ $3000$ $85$ $3/4$ $1, 3R, 4, 12$ $36.0$ $48.0$ $90.0$ $1375 - 1540$ $3000$ $R5$ $3/4$ $1, 3R, 4, 12$ $36.0$ $48.0$ $90.0$ $1375 - 1540$ $3000$ $R5$ $3/4$ $1, 3R, 4, 12$ $36.0$ $48.0$ $90.0$ $1375 - 1540$ $3000$ $R5$ $3/4$ $1, 3R, 4, 12$ $36.0$ $48.0$ $90.0$ $1375 - 1540$ $3000$ $R5$ $3/4$ $1, 3R, 4, 12$ $36.0$ $48.0$ $90.0$ $1375 - 1540$ $4000$ $65L$ $2/3/4$ $1, 3R, 4, 12$ $36.0$ $48.0$ $90.0$ $1375 - 1540$	

#### Notes:

CT and C1 - Transfer Switch Models

All components are manufactured by ABB and branded for Caterpillar. 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.

The transfer switches are of nearly identical construction with minor control differences listed to right.

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

-CTG-A0/A4 - Open Transition, MX150 Controller -CTGD-A0/A4 - Delay Transition, MX150

Controller

-CTS-B0/B4 - Open Transition, MX250 Controller

-CTSD-B0/B4 - Delay Transition, MX250 Controller

-CTSCT-B0/B4 - Closed Transition, MX250

Controller

-C1O/C4O - Open Transition, MX350 Controller

-C1D/C4D - Delay Transition, MX350 Controller

-C1C/C4C - Closed Transition, MX350 Controller

CS and CG - Transfer Switch Models

**TABLE 3** 

-CSAO - Open Transition, OXCO1 Controller -CSAD - Delay Transition, OXCO1 Controller -CSAC - Closed Transition, OXCO1 Controller

-CGAO - Open Transition, OXCO1 Controller

-CGAD - Delay Transition, OXCO1 Controller

-	AR AUTOMATIC AND BYPASS TRANSFER S CERTIFIED SUBCOMPONENT MATRIX	SWITCH	Т	ABLE	4	WEGAI W.E. GUNDY & ASSOCIATES, INC. STRUCTURAL & EARTHQUAKE ENGINEERING		
Subcomponent	Description	Manufacturer	General	l Dimensi	ons (in)	Weight	Representative	
ID Number			Width	Depth	Height	(lbs)	UUT	
	Automatic Transfer Switch P	ower Panel As	ssembly					
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	Kari <mark>ABB</mark>	<mark>24.8</mark> -30.3	28.6	30.5	365-690	interpolated	
50C-2030-4000	4000A ZTS-B0/ZTSD-B0/ZTSCT-B0/Z10/Z1D/Z1C11/27/2	2023ABB	<mark>32.3</mark> -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	
	Vertical Bypass Power	Panel Assemb	ly					
50C-2036-100/400	100-400A ZBTS-B0/ZBTSD-B0/ZBTSCT-B0 100-400A Z20/Z2D/Z2C	G 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	

	AR AUTOMATIC AN CERTIFIED SUBCO	SWITCH	Т	TABLE 4			EGAI by & Associates, Inc. a earthquake engineering	
Subcomponent	D	escription	Manufacturer	General Dimensions		ons (in)	Weight	Representative
ID Number	De	escription	Manufacturer	Width	Depth	Height	(lbs)	UUT
		Horizontal Bypass Powe	r Panel Assem	bly				
50C-2048-600-1200	600-1200A ZBTS-B1/ZBTS 600-1200A Z30/Z3D/Z3C	D-B1/ZBTSCT-B1	ABB	32.5-37.5	41.2	38.6	660-738	extrapolated
50C-2048-1200	1200A ZBTS-B1	D CODI	ABB	37.5	41.2	38.6	738	UUT <sub>x</sub> -5
50C-2042-1600-3000	1600-3000A ZBTS-B1/ZBT 600-1200A Z30/Z3D/Z3C	ABB	40.0-45.5	63.0	79.5	2870-3225	interpolated	
50C-2042-3000	3000A ZBTS-B1	ADH	ABB	45.5	63.0	79.5	3225	UUT <sub>x</sub> -6
		Electrical Panel / Contr	oler Compone	nts		•		
OXCO1 <sup>1</sup>	Controller and CPU	BY: Mohammac	ABB	8.4	4.5	6.6	2.4	UUT <sub>v</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	DATE: 11/27/	ABB	11.0	4.0	14.0	12.0	UUT <sub>w</sub> -2/UUTw-3 UUT <sub>z</sub> -6 UUT <sub>x</sub> -5/UUTx-6
MX350	Controller and CPU	PN	ABB	12.0	4.0	10.0	10.0	UUT <sub>y</sub> -2
Notes:	1	BUILDI	JGC				1	

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

UUT<sub>v</sub>-1 **UNIT UNDER TEST (UUT)** SUMMARY SHEET (63L 600A) Mounting Details: Rigid floor mounted with 4 - 1/2" diameter grade 5 bolts Viohammad Karim Manufacturer: Caterpillar (ABB) Product Line: Automatic Transfer Switch Component: CSAC-060 (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** Natural Fequency (Hz) Dimensions (inches) Weight (lb) Width FB V Depth Height SS 40.0 20.0 74.0 10.3 10.3 538 26.6 SEISMIC TEST PARAMETERS Building Code / Test Criteria  $S_{DS}(g)$  $A_{FLX-H}(g) | A_{RIG-H}(g) | A_{FLX-V}(g) | A_{RIG-V}(g)$ z / h Ip 2.00 1.0 1.5 3.20 2.40 -CBC 2022 / ICC-ES AC156 2.50 0.0 1.5 0.67 1.67 Note: The unit was full of contents during testing and remained fuctional 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. The UUT is manufactured by ABB and branded Caterpillar. The first digit of the ID is "Z" for ABB and this is changed to "C" for the branded Caterpillar product.

UUT<sub>w</sub>-1 **UNIT UNDER TEST (UUT)** (F14 600A) **SUMMARY SHEET** Mounting Details: Rigid floor mounted with 4 - 1/2" diameter grade 5 bolts DATE Manufacturer: Caterpillar (ABB) Product Line: Automatic Transfer Switch Component: ZTG-A0-600 (CTG-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** Natural Fequency (Hz) Dimensions (inches) Weight (lb) Width FB V Depth Height SS 29.7 24.0 20.0 69.0 10.9 >33.3 265 SEISMIC TEST PARAMETERS Building Code / Test Criteria  $S_{DS}(g)$  $A_{FLX-H}(g) | A_{RIG-H}(g) | A_{FLX-V}(g) | A_{RIG-V}(g)$ z / h Ip CBC 2022 / 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 fuctional before and after the ICC-ES AC156 test. The unit maintained structural integrity during and after the ICC-ES AC156 Test. The UUT is manufactured by ABB and branded Caterpillar. The first digit of the ID is "Z" for ABB and this is changed to "C" for the branded Caterpillar product.



UUT,	<sub>w</sub> -2		UNIT	UNDEF	R TES'	T (UUT)			
(65L-40	00A)		SU	<b>IMMAR</b>	AY SH	EET		W.E. GUNDY & As	SSOCIATES, INC.
Mounting De	tails: Rigio	d floor n	nounted wit	th 8 - 1/2" c	liameter	grade 5 bol	ts		
Manufacture	rr Caternil	lar (AB)		OR COL HC OSP-0 Mohamm	DE CO Ai ad Kar 7/202			a	
Product Line	1								
Component:					2000000 1997000		, 		
UUT Functio		· · · ·			rom utili	ty power to	emergency	nower	
UUT Descrip Controller, an Test Location	o <b>tion:</b> 4000 d NEMA 1	A 4-Pol Frame	e Automati Size 65L er	c Transfer nclosure.	TNU		ZTS-B0 Pc	-	
			-	UUT PRO	PERTIE	`S	2 uit		
				ns (inches)			Natu	al Fequency	v (Hz)
Weight (lb)	Wid	th	Dimensio		Н	eight	FB	SS	V
2,100	46.0         60.0         90.0	19.5	10.9	>33.3					
			SEISM	IC TEST	PARAM	IETERS		•	
Building Co	de / Test C	riteria	$S_{DS}\left(g ight)$	z / h	I <sub>P</sub>	$A_{FLX-H}(g)$	$A_{RIG-H}(g)$	$A_{FLX-V}(g)$	A <sub>RIG-V</sub> (g)
CBC 2022 /	ICC-ES A	C156	2.00	1.0	1.5	3.20	2.40	1.34	0.54
Note: The unit w maintained struc Caterpillar. The	tural integrity	y during a	nd after the IO	CC-ES AC15	6 Test. The	e UUT is man	ufactured by	ABB and brar	



UUT<sub>w</sub>-3 **UNIT UNDER TEST (UUT)** (14C-400A)**SUMMARY SHEET** Mounting Details: Rigid floor mounted with 4 - 1/2" diameter grade 5 bolts Manufacturer: Caterpillar (ABB) Product Line: Vertical Bypass Switch Component: CBTS-B0-400 (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** Dimensions (inches) Natural Fequency (Hz) Weight (lb) Width FB V Depth Height SS 30.0 28.5 86.0 10.2 7.0 >33.3 875 SEISMIC TEST PARAMETERS Building Code / Test Criteria  $S_{DS}(g)$  $A_{FLX-H}(g) | A_{RIG-H}(g) | A_{FLX-V}(g) | A_{RIG-V}(g)$ z / h Ip CBC 2022 / 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 fuctional before and after the ICC-ES AC156 test. The unit maintained structural integrity during and after the ICC-ES AC156 Test. The UUT is manufactured by ABB and branded Caterpillar. The first digit of the ID is "Z" for ABB and this is changed to "C" for the branded Caterpillar product.

UUT <sub>z</sub> -6		UNIT UNDER TEST (UUT)					WE	GΔI		
(65 <b>B</b> -40	-4000A) SUMMARY SHEET						W.E. GUNDY & ASSOCIATES, INC. STRUCTURAL & EARTHQUAKE ENGINEERING			
Mounting Do	etails: Rigid floor r	nounted wit	th 8 - 1/2" c	liameter	grade 5 bol	ts				
		ENED F.	DR COL	• 100	Mpilan					
Product Line Component:	er: Caterpillar (AB e: Vertical Bypass e CBTS-B0-4000 (Z on: Manual/Autom	B) Switch CBTS-B0-40		71202	09 17 20 0 0 0 0 0 0	emergency	power.			
Product Lind Component: UUT Functio	e: Vertical Bypass CBTS-B0-4000 (Z on: Manual/Autom	B) Switch ZBTS-B0-40 atic power s	Vohanne E: 11/2 000) switching fr	TI202	09 17 20			IX250		
Product Lind Component: UUT Functio UUT Descrip	e: Vertical Bypass CBTS-B0-4000 (Z on: Manual/Autom otion: 4000A 4-Pol	B) Switch ZBTS-B0-40 atic power s le Vertical H	Moham 11/2 000) switching fi 3ypass Swi	rom utilit	09 17 20			IX250		
Product Line Component: UUT Functio UUT Descrip Controller, an	e: Vertical Bypass CBTS-B0-4000 (Z on: Manual/Autom otion: 4000A 4-Pol nd NEMA 3R,4,12	B) Switch (BTS-B0-40 atic power s le Vertical H Frame Size	D00) switching fi 3ypass Swi 65B enclos	rom utilit tch with sure.	09 17 20	ГS-B0 Pow	er Panel, M			
Product Line Component: UUT Functio UUT Descrip Controller, an	e: Vertical Bypass CBTS-B0-4000 (Z on: Manual/Autom otion: 4000A 4-Pol	B) Switch (BTS-B0-40 atic power s le Vertical H Frame Size A - Report	000) switching fi 3ypass Swi 65B enclos JID 19-011	rom utilit tch with sure. 43-1	9 17 20 ty power to 4000A ZB	ГS-B0 Pow				
Product Line Component: UUT Functio UUT Descrip Controller, an Test Locatio	e: Vertical Bypass CBTS-B0-4000 (Z on: Manual/Autom otion: 4000A 4-Pol nd NEMA 3R,4,12	B) Switch 2BTS-B0-40 atic power s le Vertical H Frame Size A - Report	000) switching fr 3ypass Swi 65B enclos JID 19-011 UUT PRO	rom utilit tch with sure. 43-1	9 17 20 ty power to 4000A ZB	FS-B0 Pow	er Panel, M	r 2019		
Product Line Component: UUT Functio UUT Descrip Controller, an	e: Vertical Bypass CBTS-B0-4000 (Z on: Manual/Autom otion: 4000A 4-Pol nd NEMA 3R,4,12 n: Clark Testing, P	B) Switch ZBTS-B0-40 atic power s le Vertical H Frame Size A - Report Dimensio	John Sypass Swi 65B enclos JID 19-011 UUT PRO ns (inches)	rom utili tch with sure. 43-1 PERTIE	29 17 20 ty power to 4000A ZB 2S	FS-B0 Pow Test Date Natur	er Panel, M	r 2019		
Product Line Component: UUT Functio UUT Descrip Controller, an Test Location Weight (lb)	e: Vertical Bypass CBTS-B0-4000 (Z on: Manual/Autom otion: 4000A 4-Pol nd NEMA 3R,4,12 n: Clark Testing, P Width	B) Switch (BTS-B0-40 atic power s le Vertical H Frame Size A - Report Dimensio De	000) switching fi 3ypass Swi 65B enclos JID 19-011 UUT PRO ns (inches) pth	rom utili tch with sure. 43-1 PERTIF	ty power to 4000A ZB CS eight	TS-B0 Pow Test Date Natur FB	rer Panel, M September al Fequenc SS	r 2019 y (Hz) V		
Product Line Component: UUT Functio UUT Descrip Controller, an Fest Location	e: Vertical Bypass CBTS-B0-4000 (Z on: Manual/Autom otion: 4000A 4-Pol nd NEMA 3R,4,12 n: Clark Testing, P	B) Switch ZBTS-B0-40 atic power s le Vertical H Frame Size A - Report Dimensio De 81	000) switching fi 3ypass Swi 65B enclos JID 19-011 UUT PRO ns (inches) pth	rom utili tch with sure. 43-1 PERTIE	29 17 20 ty power to 4000A ZB 2S eight 20.0	FS-B0 Pow Test Date Natur	er Panel, M : Septembe ral Fequenc	r 2019 y (Hz)		
Product Line Component: UUT Functio UUT Descrip Controller, an Fest Location Weight (lb) 6,406	e: Vertical Bypass CBTS-B0-4000 (Z on: Manual/Autom otion: 4000A 4-Pol nd NEMA 3R,4,12 n: Clark Testing, P Width	B) Switch 2BTS-B0-40 atic power s le Vertical H Frame Size A - Report Dimensio Dimensio 81 SEISM	000) switching fr 3ypass Swi 65B enclos JID 19-011 UUT PRO ns (inches) pth .0	rom utili tch with sure. 43-1 PERTIE	29 17 20 ty power to 4000A ZB 2S eight 20.0 IETERS	TS-B0 Pow Test Date Natur FB	rer Panel, M September al Fequenc SS	r 2019 y (Hz) V 17.9		
Product Line Component: UUT Functio UUT Descrip Controller, an Fest Location Weight (lb) 6,406 Building Co	e: Vertical Bypass CBTS-B0-4000 (Z on: Manual/Autom otion: 4000A 4-Pol ad NEMA 3R,4,12 n: Clark Testing, P Width 54.0	B) Switch ZBTS-B0-40 atic power s le Vertical H Frame Size A - Report Dimensio De 81	000) switching fr 3ypass Swi 65B enclos JID 19-011 UUT PROI ns (inches) pth .0 IIC TEST	rom utili tch with sure. 43-1 PERTIE H	29 17 20 ty power to 4000A ZB 2S eight 20.0	TS-B0 Pow Test Date: Natur FB 20.0	rer Panel, M September al Fequenc SS 4.7	r 2019 y (Hz) V		
Product Line Component: UUT Functio UUT Descrip Controller, an Test Location Weight (lb) 6,406 Building Co	e: Vertical Bypass CBTS-B0-4000 (Z on: Manual/Autom otion: 4000A 4-Pol nd NEMA 3R,4,12 n: Clark Testing, P Width 54.0	B) Switch (BTS-B0-40 atic power s le Vertical H Frame Size A - Report Dimensio Dimensio Be 81 SEISM S <sub>DS</sub> (g)	000) switching fr 3ypass Swi 65B enclos JID 19-011 UUT PROI ns (inches) pth .0 IIC TEST z / h	rom utili tch with sure. 43-1 PERTIE H Q PARAM I <sub>P</sub>	29 17 20 ty power to 4000A ZB 2S eight 20.0 IETERS A <sub>FLX-H</sub> (g)	TS-B0 Pow Test Dates Natur FB 20.0 A <sub>RIG-H</sub> (g)	rer Panel, M September al Fequenc SS 4.7	r 2019 y (Hz) V 17.9		

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: Caterpillar (ABB)

Product Line: Horizontal Bypass Switch

Component: CBTS-B1-1200 (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 Fequency (Hz)					
	Width	De	pth	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		$S_{DS}(g)$	z / h	I <sub>P</sub>	$A_{FLX-H}(g)$	$A_{\text{RIG-H}}(g)$	$A_{FLX-V}\left(g\right)$	$A_{RIG-V}(g)$				
CBC 2022 /	/ ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	1.34	0.54				

ODEDTIEC

Note: The unit was full of contents during testing and remained fuctional before and after the ICC-ES AC156 test. The unit maintained structural integrity during and after the ICC-ES AC156 Test. The UUT is manufactured by ABB and branded Caterpillar. The first digit of the ID is "Z" for ABB and this is changed to "C" for the branded Caterpillar product.

UUT<sub>x</sub>-6 **UNIT UNDER TEST (UUT)** (65B-3000A) **SUMMARY SHEET** Mounting Details: Rigid floor mounted with 4 - 1/2" diameter grade 5 bolts and 3x7x0.5" A36 plate /Iohammad Karim Manufacturer: Caterpillar (ABB) **Product Line:** Horizontal Bypass Switch Component: CBTS-B1-3000 (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** Natural Fequency (Hz) Dimensions (inches) Weight (lb) Width FB V Depth Height SS 46.1 64.6 80.0 17.2 15.5 5,747 24.1 SEISMIC TEST PARAMETERS Building Code / Test Criteria  $A_{FLX-H}(g) | A_{RIG-H}(g) | A_{FLX-V}(g) | A_{RIG-V}(g)$  $S_{DS}(g)$ z / h Ip CBC 2022 / 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 fuctional before and after the ICC-ES AC156 test. The unit maintained structural integrity during and after the ICC-ES AC156 Test. The UUT is manufactured by ABB and branded Caterpillar. The first digit of the ID is "Z" for ABB and this is changed to "C" for the branded Caterpillar product.