



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

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

OFFICE USE ONLY

APPLICATION #: OSP-0613

OSHPD Special Seismic Certification Preapproval (OSP)

Type: New Renewal

Manufacturer Information

Manufacturer: ABB Zenith Controls

Manufacturer's Technical Representative: Yogesh Patel

Mailing Address: 1555 Scott St, Senatobia, MS 38668

Telephone: (224) 279-7013

Email: yogeshkumar.patel@us.abb.com

Product Information

Product Name: Emergency and Standby Power Systems

Product Type: Automatic Transfer Switches

Product Model Number: See Certified Product List Table 1

General Description: Transfer switches that provide manual / automatic power switching from a primary source to backup power source (30A to 1200A). Equipment is manufactured and sold by ABB and also Brand Labeled by Caterpillar.

Mounting Description: Rigid floor or wall mounted

Tested Seismic Enhancements: None

Applicant Information

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

Contact Person: Travis Soppe

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

Telephone: (208) 342-5989

Email: tsoppe@wegai.com

Title: President





**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

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

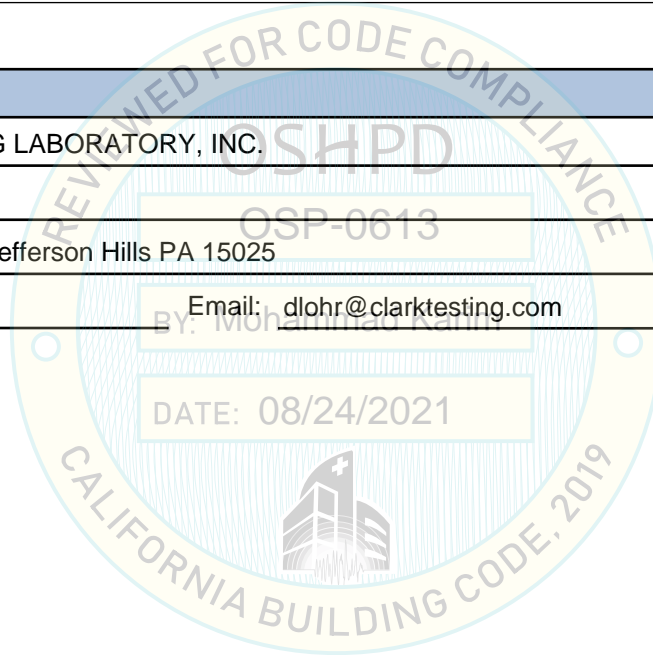
Company Name: CLARK TESTING LABORATORY, INC.

Contact Person: Devon Lohr

Mailing Address: 1801 Route 51, Jefferson Hills PA 15025

Telephone: (412) 387-1001

Email: dlohr@clarktesting.com





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

Seismic Parameters

Design Basis of Equipment or Components (F_p/W_p) = 1.50

SDS (Design spectral response acceleration at short period, g) = 2.00

a_p (Amplification factor) = 2.5

R_p (Response modification factor) = 6.0

Ω_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

OSHPD Approval (For Office Use Only) - Approval Expires on 12/31/2025

Date: 8/24/2021

Name: Mohammad Karim Title: Supervisor, Health Facilities

Special Seismic Certification Valid Up to: SDS (g) = 2.00 z/h = 1

Condition of Approval (if applicable): DATE: 08/24/2021

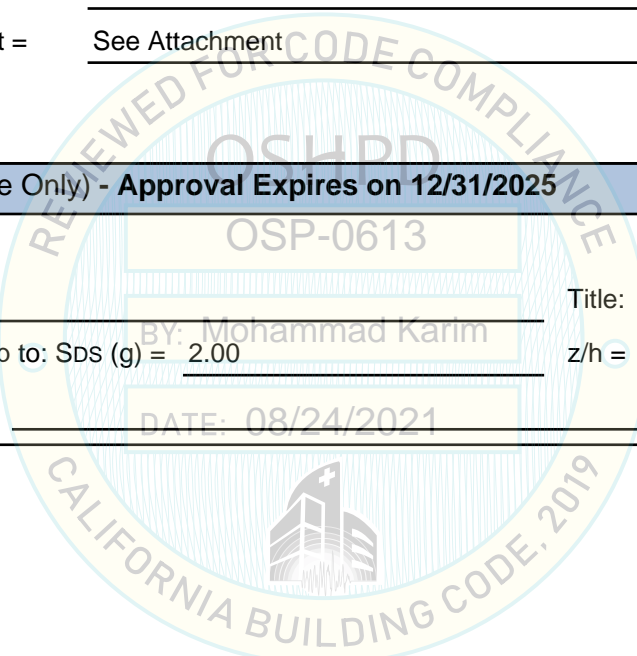


ABB ZTX, ZTG(D), ZTS(D) AUTOMATIC TRANSFER SWITCHES WITH TruONE SPECIAL SEISMIC CERTIFICATION PRODUCT LINE MATRIX



ID Number ¹⁾	Ampere Rating	Pole	NEMA Rating	Enclosure Dimensions (in)			Service Weight (lbs)	Representative UUT
				Width	Depth	Height		
TABLE 1: WALL MOUNTED ATS PRODUCT LINE - MAX $S_{DS} = 2.5$ at $z/h = 0$ and $S_{DS} = 2.0$ at $z/h = 1.0$								
ZGOG3XX32	200	3	3R	24.0	12.3	32.0	96	UUT-1
ZTX, ZTG(D), ZTS(D) Series	30-200	2 / 3 / 4	1 / 3R / 4 / 12	24.0	12.0-12.3	32.0	95 - 125	interpolated
ZTX, ZTG(D), ZTS(D) Series	260	2 / 3 / 4	1 / 3R / 4 / 12	24.0	14.0-14.3	46.0	100-140	interpolated
ZTX, ZTG(D), ZTS(D) Series	400	2 / 3 / 4	1 / 3R / 4 / 12	24.0	14.0-14.3	46.0	105-142	interpolated
ZGOK3SX12	400	4	1	24.0	14.0	46.0	142	UUT-2
TABLE 2: FLOOR MOUNTED ATS PRODUCT LINE - MAX $S_{DS} = 2.5$ at $z/h = 0$ and $S_{DS} = 2.0$ at $z/h = 1.0$								
ZGOL3XX12	600	4	1	28.0	19.5	54.0	252	UUT-3
ZTX, ZTG(D), ZTS(D) Series	600	2 / 3 / 4	1 / 3R / 4 / 12	28.0	19.5-19.8	54.0	210 - 252	interpolated
ZTX, ZTG(D), ZTS(D) Series	800 - 1200	3 / 4	1 / 3R / 4 / 12	40.0	19.5-19.8	74.0	435 - 478	interpolated
ZGDP3SX32	1200	4	3R	40.0	19.8	74.0	478	UUT-4

Notes:

- ¹⁾ All components are manufactured by ABB. The part numbers listed uniquely identify the type of component, manufacturer, and material of construction for each sub-component within the tested units.
- ²⁾ Enclosures are constructed of welded carbon steel.
- ³⁾ The ZTX/ZTG(D)/ZTS(D) series products are represented with the following ID numbers:
 ZTX - ZXOxxxxxx
 ZTG(D) - ZGOxxxxxx / ZGDxxxxxx
 ZTS(D) - ZSAOxxxxxx / ZSADxxxxxx
- ⁴⁾ The ZTX/ZTG(D)/ZTS(D) automatic transfer switches (ATS) are of nearly identical construction with minor control differences listed below:
 ZXO - ZTX Open transition
 ZGO - ZTG Open transition
 ZGD - ZTG(D) Delay transition
 ZSAO - ZTS Open transition
 ZSAD - ZTS(D) Delay transition

**ABB INC. AUTOMATIC TRANSFER SWITCH
BRANDED PRODUCT LINE SEISMIC CERTIFICATION MATRICES**



ABB Identification	Caterpillar Identification	Representative UUT
---------------------------	-----------------------------------	---------------------------

WALL MOUNTED ATS PRODUCT LINE

ZGOG3XX32	CGOG3XX32	UUT-1
ZTX/ZTG(D)/ZTS(D)-30 to 200	CX/CG(D)/CS(D)-30 to 200	interpolated
ZTX/ZTG(D)/ZTS(D)-260	CX/CG(D)/CS(D)-260	interpolated
ZTX/ZTG(D)/ZTS(D)-400	CX/CG(D)/CS(D)-400	interpolated
ZGOK3SX12	CGOK3SX12	UUT-2

FLOOR MOUNTED ATS PRODUCT LINE

ZGOL3XX12	CGOL3XX12	UUT-3
ZTX/ZTG(D)/ZTS(D)-600	CX/CG(D)/CS(D)-600	interpolated
ZTX/ZTG(D)/ZTS(D)-800 to 1200	CX/CG(D)/CS(D)-800 to 1200	interpolated
ZGDP3SX32	CGDP3SX32	UUT-4

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.

- 1) The CX/CG(D)/CS(D) series products are represented with the following ID numbers:
 CX - CXOxxxxxx
 CG(D) - CGOxxxxxx / CGDxxxxxx
 CS(D) - CSAOxxxxxx / CSADxxxxxx
- 2) The CX/CG(D)/CS(D) automatic transfer switches (ATS) are of nearly identical construction with minor control differences listed below:
 CXO - CX Open transition
 CGO - CG Open transition
 CGD - CG(D) Delay transition
 CSAO - CS Open transition
 CSAD - CS(D) Delay transition
- 3) Controllers in CAT brand lable units have an added, "-CAT", extension in the part ID.

**ABB ZTX, ZTG(D), ZTS(D) AUTOMATIC TRANSFER SWITCHES WITH TruONE
SPECIAL SEISMIC CERTIFICATION SUBCOMPONENT MATRIX**



Subcomponent ID Number ¹⁾	Description	Manufacturer	General Dimensions (in)			Weight (lbs)	Representative UUT
			Width	Depth	Height		
Table 3: Automatic Transfer Switch Power Panel Assembly - Wall Mounted							
OXA200U3X2QB-ZE	200A 3-Pole open transition power panel	ABB	13.0	7.2	15.4	32	UUT-1
OXx260Uxxxxx-ZE	260A 2/3/4-Pole open/delay transition power panel	ABB	12.8-17.9	7.2-8.4	14.8-20.8	28 - 39	interpolated
OXx400Uxxxxx-ZE	400A 2/3/4-Pole open/delay transition power panel	ABB	15.1-20.2	7.2-8.4	14.8-20.8	32 - 52	interpolated
OXA400U3S3QB-ZE	400A 4-Pole open transition power panel	ABB	20.2	7.2	18.9	45	UUT-2
Table 4: Automatic Transfer Switch Power Panel Assembly - Floor Mounted							
OBX600U3S3QB-ZE	600A 4-Pole open transition power panel	ABB	17.6	8.4	18.9	45	UUT-3
OXx600Uxxxxx-ZE	600A 2/3/4-Pole open/delay transition power panel	ABB	15.1-20.2	7.2-8.4	14.8-20.8	32 - 52	interpolated
OXx800-1200Uxxxxx-ZE	800-1200A 3/4-Pole open/delay transition power panel	ABB	23.5-28.1	7.2-8.4	14.1-20.9	95 - 127	interpolated
OXA1200U3S3QB-ZE	1200A 4-Pole delay transition power panel	ABB	28.0	8.4	19.2	127	UUT-4
Table 5: Electrical Panel / Controller Components - Wall / Floor Mounted							
OXAMI1-L3	Open transition Level 3 HMI	ABB	4.0	0.8	6.5	2.0	UUT-1, 3
OXAMI1-L2	Open transition Level 2 HMI	ABB	4.0	0.8	6.5	2.0	interpolated
OXBMI1-L3	Delay transition Level 3 HMI	ABB	4.0	0.8	6.5	2.0	interpolated
OXBMI1-L4	Delay transition Level 4 HMI	ABB	4.0	0.8	6.5	2.0	interpolated
OXAMI1-L4	Open transition Level 4 HMI	ABB	4.0	0.8	6.5	2.0	UUT-2, 4

Notes:

The "xxxx" designation at the end of the model number provides differences in control software for the power panels.

UUT-1

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



Mounting Details: Rigid wall mounted with 4 - 3/8" grade 5 bolts



REVIEWED FOR CODE COMPLIANCE
OS-PO
OSP-0613
DATE: 08/24/2021
BY: Mohammad Karim

Manufacturer: ABB

Product Line: ZTX, ZTG(D), ZTS(D) Automatic Transfer Switch

Component ID: ZGOG3XX32

Test Report Component ID: OXA200U3X2QB-ZE*

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

UUT Description: 200A 3-Pole Automatic Transfer Switch with OXA200U3X2QB-ZE Power Panel, OXAMI1-L2 open transition level 3 HMI controller, and NEMA 3R enclosure.

Test Location: Clark Dynamic Test Laboratory, Inc., PA

Test Date: April-May 2019

UUT PROPERTIES

Weight (lb)	Dimensions (inches)			Natural Frequency (Hz)		
	Width	Depth	Height	FB	SS	V
96	24.0	12.3	32.0	N/A	N/A	N/A

SEISMIC TEST PARAMETERS

Building Code / Test Criteria	S _{DS} (g)	z / h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (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. *The lab report identified the system using the internal component number not the complete system component identification number.

UUT-2

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



Mounting Details: Rigid wall mounted with 4 - 1/2" grade 5 bolts



DATE: 08/24/2021

Manufacturer: ABB

Product Line: ZTX, ZTG(D), ZTS(D) Automatic Transfer Switch

Component ID: ZGOK3SX12

Test Report Component ID: OXA400U3S3QB-ZE*

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

UUT Description: 400A 4-Pole Automatic Transfer Switch with OXA400U3S3QB-ZE Power Panel, OXAMI1-L4 open transition level 3 HMI controller, and NEMA 1 enclosure.

Test Location: Clark Dynamic Test Laboratory, Inc., PA

Test Date: April-May 2019

UUT PROPERTIES

Weight (lb)	Dimensions (inches)			Natural Frequency (Hz)		
	Width	Depth	Height	FB	SS	V
142	24.0	14.0	46.0	N/A	N/A	N/A

SEISMIC TEST PARAMETERS

Building Code / Test Criteria	S _{DS} (g)	z / h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (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. *The lab report identified the system using the internal component number not the complete system component identification number.

UUT-3

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



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



Manufacturer: ABB

Product Line: ZTX, ZTG(D), ZTS(D) Automatic Transfer Switch

Component ID: ZGOL3XX12

Test Report Component ID: OBX600U3S3QB-ZE*

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

UUT Description: 600A 4-Pole Automatic Transfer Switch with OBX600U3S3QB-ZE Power Panel, OXAMI1-L3 open transition level 3 HMI controller, and NEMA 1 enclosure.

Test Location: Clark Dynamic Test Laboratory, Inc., PA

Test Date: April-May 2019

UUT PROPERTIES

Weight (lb)	Dimensions (inches)			Natural Frequency (Hz)		
	Width	Depth	Height	FB	SS	V
252	28.0	19.5	54.0	25.7	18.5	>33

SEISMIC TEST PARAMETERS

Building Code / Test Criteria	S _{DS} (g)	z / h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (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. *The lab report identified the system using the internal component number not the complete system component identification number.

UUT-4

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



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



DATE: 08/24/2021

Manufacturer: ABB

Product Line: ZTX, ZTG(D), ZTS(D) Automatic Transfer Switch

Component ID: ZGDP3SX32

Test Report Component ID: OXA1200U3S3QB-ZE*

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

UUT Description: 1200A 4-Pole Automatic Transfer Switch with OXA1200U3S3QB-ZE Power Panel, OXAMI1-L4 open transition level 4 HMI controller, and NEMA 3R enclosure.

Test Location: Clark Dynamic Test Laboratory, Inc., PA

Test Date: April-May 2019

UUT PROPERTIES

Weight (lb)	Dimensions (inches)			Natural Frequency (Hz)		
	Width	Depth	Height	FB	SS	V
478	40.0	19.8	74.0	25.7	13.8	>33

SEISMIC TEST PARAMETERS

Building Code / Test Criteria	S _{DS} (g)	z / h	I _P	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (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. *The lab report identified the system using the internal component number not the complete system component identification number.