



**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: ZTX, ZTG(D), ZTS(D) (with TruONE panel)

Product Type: Automatic Transfer Switch

Product Model Number: See Certified Product List Table 1

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

General Description: Transfer switches that provide manual / automatic power switching from a primary source to backup power source (30A to 1200A).

Mounting Description: Rigid floor or wall mounted

Applicant Information

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

Contact Person: Travis Soppe

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

Telephone: (208) 342-5989 Ext.115

Email: tsoppe@wegai.com

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

Signature of Applicant: 

Date: 06/25/2019

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 Dr, Ste 310, Boise, ID 83702

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

Supports and Attachments Preapproval

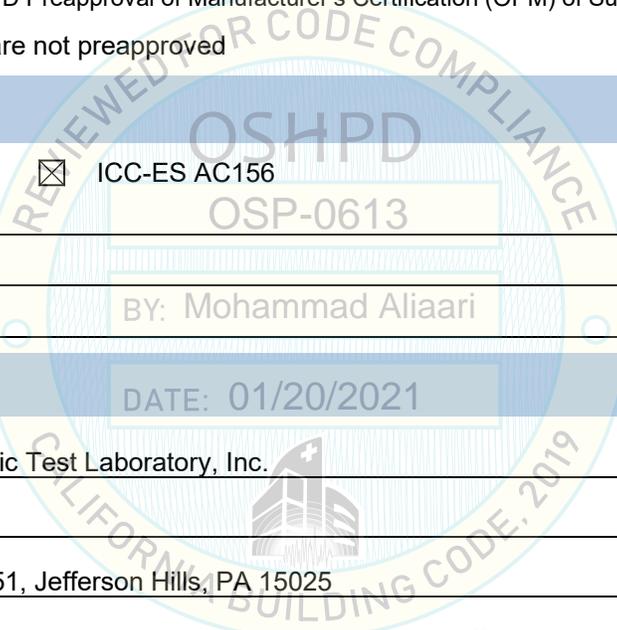
Supports and attachments are preapproved under OPM- _____
(Separate application for OSHPD Preapproval of Manufacturer's Certification (OPM) of Supports and attachments is required)

Supports and attachments are not preapproved

Certification Method

Testing in accordance with: ICC-ES AC156

Other (Please Specify): _____



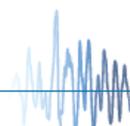
Testing Laboratory

Company Name: Clark Dynamic Test Laboratory, Inc.

Contact Name: Devon Lohr

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

Telephone: (412) 387-1027 Email: dlohr@clarktesting.com





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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

Ω_0 (System overstrength factor) = 2.0

I_p (Importance factor) = 1.5

z/h (Height factor ratio) = 1.0

Equipment or Component Natural Frequencies (Hz) = See Attachments

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

Equipment or Components @ grade designed in accordance with ASCE 7-10 Chapter 15: Yes No

Design Basis of Equipment or Components (V/W) = _____

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

S_{D1} (Design spectral response acceleration at 1 second period, g) = _____

R (Response modification coefficient) = _____

Ω_0 (System overstrength factor) = by: Mohammad Aliaari

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): Certified Product Matrix, UUT Summary Sheets, Subcomponent Certification Letter

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

Signature: M. Aliaari

Date: January 20, 2021

Print Name: Mohammad Aliaari

Title: Senior Structural Engineer

Special Seismic Certification Valid Up to : S_{DS} (g) = 2.00

z/h = 1

Condition of Approval (if applicable): _____



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) - ZSOxxxxxx / ZSDxxxxxx
- 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 with L2 controller
 ZGO - ZTG Open transition with L3
 ZGD - ZTG(D) Delay transition with L3 controller
 ZSO - ZTS Open transition with L4 controller
 ZSD - ZTS(D) Delay transition with L4 controller

**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
BY: Mohammad Aliaari
DATE: 01/20/2021

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: 01/20/2021

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: 01/20/2021

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.