



DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION
OFFICE OF STATEWIDE HOSPITAL PLANNING AND DEVELOPMENT

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

OFFICE USE ONLY

APPLICATION #: OSP-0040

HCAI Special Seismic Certification Preapproval (OSP)

Type: New Renewal

Manufacturer Information

Manufacturer: ABB, Inc.

Manufacturer's Technical Representative: Jamie Field

Mailing Address: 45 Griffin Rd S, Bloomfield, CT 06002

Telephone: (860) 710-8565

Email: Jamie.field@us.abb.com

Product Information

Product Name: Varies (See attachment)

Product Model Number(s): Varies (See attachment)

Product Category: Panelboards

Product Sub-Category: Panelboards

General Description: A-Series Lighting Panel & Spectra Power Panel (125A-1200A).

Mounting Description: Wall Mounted Rigid

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: TRU Compliance, by Structural Integrity Associates, Inc.

Contact Person: Daniel Zentner

Mailing Address: 233 SW Wilson Ave, Suite 101, Bend, OR 97702

Telephone: (541) 292-5839

Email: dzentner@structint.com

Title: Program Manager



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

Company Name: STRUCTURAL INTEGRITY ASSOCIATES, INC.
 Name: LACHEZAR HANDZHIYSKI California License Number: S6515
 Mailing Address: 5215 Hellyer Avenue, Suite 210, San Jose, CA 95138
 Telephone: (669) 437-0200 Email: Lhandzhiyski@StructInt.com

Certification Method

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

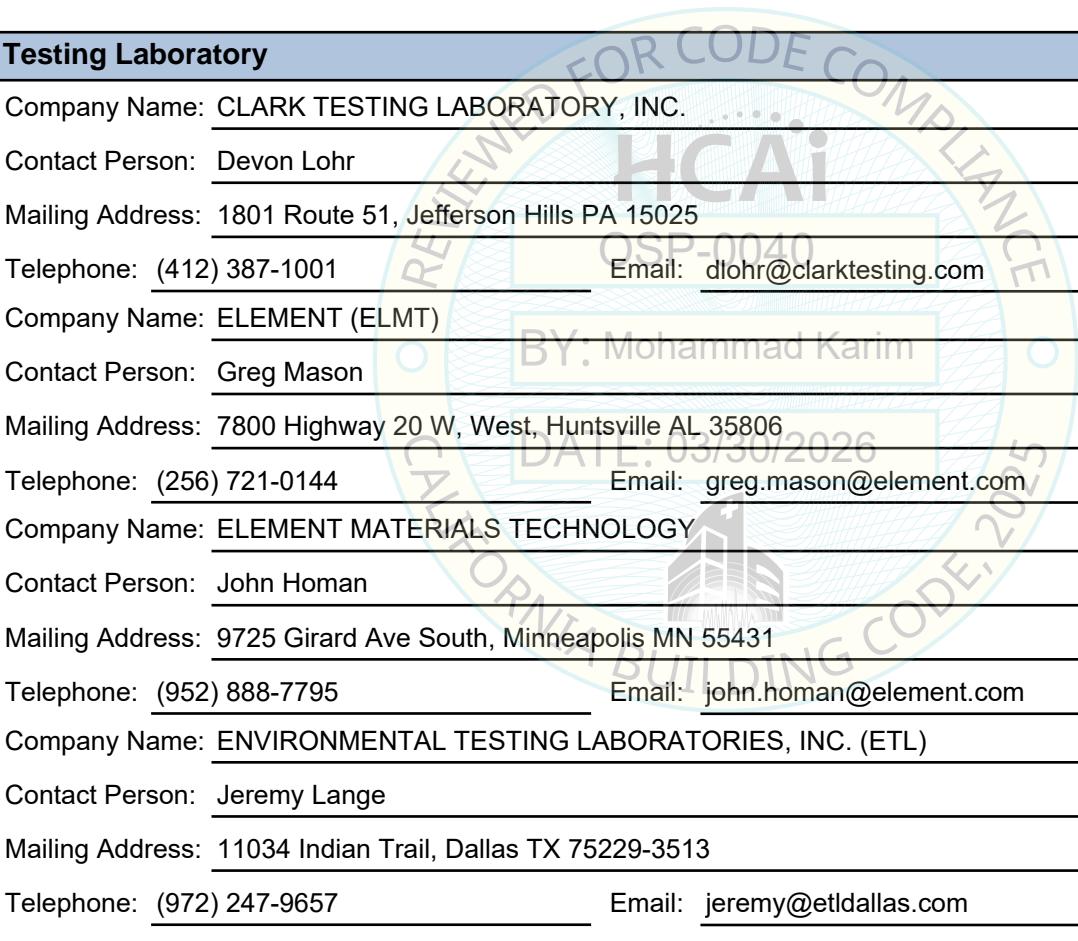
Testing Laboratory

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

Company Name: ELEMENT (ELMT)
 Contact Person: Greg Mason
 Mailing Address: 7800 Highway 20 W, West, Huntsville AL 35806
 Telephone: (256) 721-0144 Email: greg.mason@element.com

Company Name: ELEMENT MATERIALS TECHNOLOGY
 Contact Person: John Homan
 Mailing Address: 9725 Girard Ave South, Minneapolis MN 55431
 Telephone: (952) 888-7795 Email: john.homan@element.com

Company Name: ENVIRONMENTAL TESTING LABORATORIES, INC. (ETL)
 Contact Person: Jeremy Lange
 Mailing Address: 11034 Indian Trail, Dallas TX 75229-3513
 Telephone: (972) 247-9657 Email: jeremy@etldallas.com





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Seismic Parameters

Certified Response Spectral Acceleration Factors:(F_p/W_p)

Horizontal (A Flx-H), g= 3.20 (A Rig-H), g= 2.15

Vertical (A Flx-V), g= 1.33 (A Rig-V), g= 0.53

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

H_f (Force amplification height factor) = 1 @ z/h = 0; 3.5 @ z/h = 1

R_u (Structure ductility reduction factor) = 1 @ z/h = 0; 1.3 @ z/h = 1

I_p (Importance factor) = 1.5

z/h (Height ratio factor) = 1

HCAI Approval (For Office Use Only) - Approval Expires on 03/30/2032

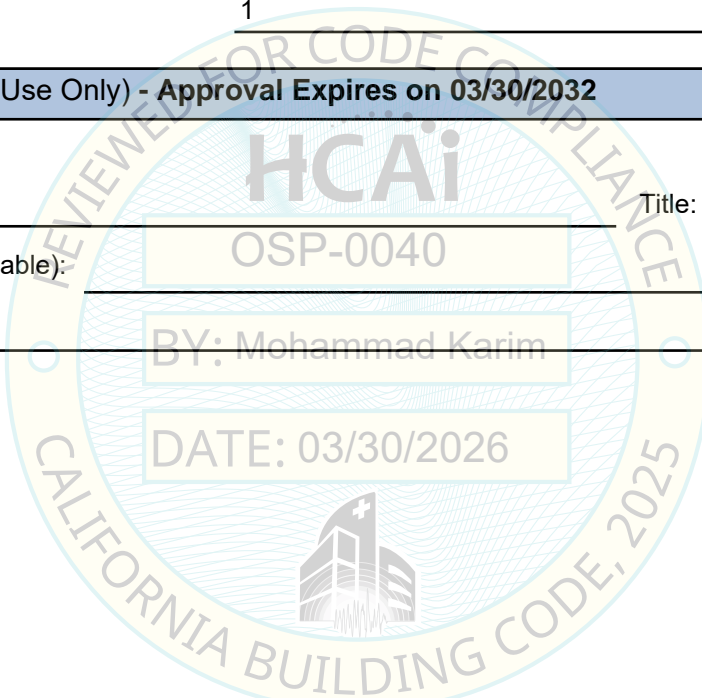
Date: 3/30/2026

Name: Mohammad Karim Title: Supervisor, Health Facilities

Condition of Approval (if applicable): OSP-0040

BY: Mohammad Karim

DATE: 03/30/2026



SPECIAL SEISMIC CERTIFICATION CERTIFIED COMPONENT MATRIX

2000903-CR-001-R2



Manufacturer: ABB	TABLE 1
Model Line: A-Series Lighting Panel & Spectra Power Panel	

Certified Product Construction Summary:
 NEMA 1 and NEMA 2 are indoor enclosures constructed of cold-formed carbon steel. NEMA 3R,4,12 are outdoor enclosures constructed of cold-formed carbon steel. NEMA 4x are outdoor enclosures constructed of stainless steel. Indoor enclosures are mounted with bolts through the interior of the cabinet, outdoor cabinets have exterior tabs that are used for mounting.

Certified Options Summary:
 See the Certified Subcomponents Tables.

Mounting Configuration:
 Wall mounted - rigid
 Note: Installed mounting must be of similar configuration and equivalent strength and stiffness to those tested.

Building Code: CBC 2025 **Seismic Certification Limits:** $S_{DS} = 2.0g$ $z/h = 1.0$ $R_{\mu} = 1.3$ $H_f = 3.5$ $I_p = 1.5$
 $S_{DS} = 2.0g$ $z/h = 0.0$ $R_{\mu} = 1.0$ $H_f = 1.0$

Model Line ^{1,2}	Model	NEMA Type	Dimensions (in)			Weight (lbs.)	Notes	UUT
			Depth	Width	Height			
Lighting Panels - ALxxx*, AQxxx*, AExxx*, ADxxx*, ASxxx*, RLxxx*, RQxxx*, RExxx*, RDxxx*, RSxxx*	Axxxx, Rxxxx	1,2,3R,4, 4x,12	27-266	Ampacity 100A-225A	Extrap.
	AQL3422ATX	1	5.0	10.0	32.0	27	225A	7
	AQF3121MBX	3R	8.0	20.0	32.0	78	125A	23
	AQF3121KBX	4X	8.0	20.0	38.0	110	125A	21
	ASF3124DTX	1	8.0	20.0	56.0	130	225A	3
	ASF3122GT	4	6.0	20.0	44.0	97	225A	4
	ASF3122GTX	4	6.0	20.0	56.0	188	225A	6
	AQC3422MTX	1	6.0	9.0	77.0	100	225A	10
	AQF3302MTSX	1	6.0	20.0	77.0	156	225A	12
	ADF3842MTX	1	6.0	20.0	77.0	266	225A	8
	ASF3122GB	1	6.0	20.0	44.0	85	225A	1
	Axxxx, Rxxxx	1,2,3R,4, 4x,12	8.0	30.0	89.0	27-368	Ampacity 100A-800A	Interp.
	ASF3428KBX	2	6.0	20.0	89.0	287	800A	20
	RQF3842MTX	1	6.0	30.0	89.0	275	225A	25
	ASF3368KBX	1	8.0	30.0	89.0	310	800A	2
	ASF3308KBX	3R	8.0	30.0	89.0	306	800A	19
	ASF3248BX	4X	8.0	30.0	89.0	316	800A	22
RDF3848MX	1	8.0	30.0	89.0	333	800A	24	

Notes:
 1. Identical NEMA cabinets are used by Spectra and Lighting Panels.
 2. Axxxx denotes GE branding, Rxxxx is an identical product but with ABB branding.

SPECIAL SEISMIC CERTIFICATION CERTIFIED COMPONENT MATRIX

2000903-CR-001-R2



Manufacturer: ABB	TABLE 1.1
Model Line: A-Series Lighting Panel & Spectra Power Panel	

**Nomenclature
FOR REFERENCE ONLY**

Religear Type

Code	Description
AQ/RQ	65kA Bolt-On 240V
AL/RL	22kA Plug-In 240V
AE/RE	18kA 480V
AS/RS	65kA 480V
AD/RD	42kA 600V

Phase

Code	Description
1	Single Phase
3	3 Phase

Amperage

Code	Description
1	125A
2	225A
4	400A
6	600A
8	800A

Main Type

Code	Description
A	THQB,TQD,TFJ, A2A
B	TEY,TFJ,TJJ,SGHA6, XT5N
C	THHQB,THQD,TFJ,TJD,SGHA6, A2N, XT5N
D	SEL,SFL,FEN,SGLA4/6, FGN2/4/6, XT1H, XT4H, XT5H
E	TEY
F	SEL,SFL,FEN,SGLA4/6, XT1H, XT4H, XT5H, XT6S
G	SEPA,SFPA,FEH,SGPA4/6,FGH2/4/6, XT4L, XT5L
H	SEPA,SFPA,FEH,SGPA4/6, FGH2/4/6, XT4L, XT5L
J	SEHA,SFHA,SGHA4,SGHA6,SKHA8, XT1S, XT4N, XT5N, XT6N
K	SEHA,SFHA,SGHA4,SGHA6,SKHA8, XT1S, XT4N, XT5N, XT6N
L	LIGHTING CONTACTOR
M	MAIN LUGS
N	Main Stud / NO NEUTRAL
R	Prostock - convertible MCB / MLO
S	SUBFEED (DUAL) MAIN LUGS
U	THED,TFJ,TJJ,SGHA6,SKHA8, FGL2/3/4, XT4L, XT5L, XT5N, XT6N
V	FGN2/4/6, XT4S, XT5S, XT6S
W	FGL2/4/6, XT4H, XT5H, XT6H
X	FGP2/4/6, XT4V, XT5V, XT6H
Y	MOLDED CASE SWITCH

Family

Code	Description
F	Factory Assembled
L	OEM/Short Rail
M	OEM/Short Rail/Shield
U	Merchandised

Circuit Count

Code	Description
12	12 Circuit
18	18 Circuit
24	24 Circuit
30	30 Circuit
36	36 Circuit
42	42 Circuit
48	48 Circuit
54	54 Circuit
60	60 Circuit
66	66 Circuit
72	72 Circuit
78	78 Circuit
84	84 Circuit

Line Entrance

Code	Description
T	Top
B	Bottom

Example Nomenclature: AQ F 3 18 4 A T X

SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENT MATRIX

2000903-CR-001-R2



Manufacturer: ABB	Table Description: BUS	TABLE 2
Model Line: A-Series Lighting Panel & Spectra Power Panel		

Building Code: CBC 2025	Seismic Certification Limits:	$S_{DS} = 2.0g$	$z/h=1.0$	$R_{\mu} = 1.3$	$H_f = 3.5$	$I_p = 1.5$
		$S_{DS} = 2.0g$	$z/h=0.0$	$R_{\mu} = 1.0$	$H_f = 1.0$	

Component Type	Manufacturer ¹	Model	Description	Notes	UUT
BUS Aluminum	ABB/GE	Al-0125	Aluminum, 2 lbs.	125A	23
		Al-0600	Aluminum, 11 lbs.	600A	2, 3, 6
		Al-0750	Aluminum, 80 lbs.	750A	1, 4, 14
		Al-HeatRated	Aluminum, 100 lbs.	Heat Rated	16
		Al-XXX	Aluminum, 0.5-100lbs.	125-800A	Interp.
		Al-0800	Aluminum, 50 lbs.	800A	20
BUS Copper	ABB/GE	Cu-0125	Copper, 3 lbs.	125A	21
		Cu-Heat Rated	Copper, 3 lbs.	Heat Rated	1, 4
		Cu-0225	Copper, 17 lbs.	225A	25
		Cu-0800	Copper, 50 lbs.	800A	2, 3, 6, 19 22, 24
		Cu-XXX	Copper, 3-150 lbs.	125A-1000A	Interp.
		Cu-1000	Copper, 3-150 lbs.	1000A	7, 8, 10, 12, 13, 15, 17, 18

Notes:
1. ABB or GE may be branded on product, products are identical.

SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENT MATRIX

2000903-CR-001-R2



Manufacturer: ABB	Table Description: Circuit Breakers	TABLE 3
Model Line: A-Series Lighting Panel & Spectra Power Panel		

Building Code: CBC 2025	Seismic Certification Limits:	$S_{DS} = 2.0g$	$z/h=1.0$	$R_{\mu} = 1.3$	$H_f = 3.5$	$I_p = 1.5$
		$S_{DS} = 2.0g$	$z/h=0.0$	$R_{\mu} = 1.0$	$H_f = 1.0$	

Component Type	Manufacturer ¹	Model	Description	Notes	UUT
Residential Breaker Q-Line	ABB/GE	THQL1115/	Plastic Molded Case, 0.3 lbs.	15A	7
		THQL*/, THQB*/, TQD*/	Plastic Molded Case, 1-4lbs.	15A-225A	Interp.
		THQB32100/	Plastic Molded Case, 1 lbs.	100A	10, 12, 18
		TQD32200WL/	Plastic Molded Case, 4 lbs.	200A	7
		TQD32225WL/	Plastic Molded Case, 4 lbs.	225A	18
Core Line Breaker-STEY	ABB/GE	TEYD3015B/	Plastic Molded Case, 2 lbs.	15A	1, 2, 3, 4, 6, 18
		TEYD3125B/	Plastic Molded Case, 2 lbs.	125A	1, 2, 3, 4, 6, 18
		TEYL1015B	Plastic Molded Case		19, 20, 22
		TEYL3125B	Plastic Molded Case		19, 20, 22
		TE*/, TF*/, TJ*/	Plastic Molded Case 1-17 lbs.	125A-600A	Interp.
		TJJ426D600WL	Plastic Molded Case, 17 lbs.	600A	Interp.
		TJJ436600WL	Plastic Molded Case, 17 lbs.	600A	2, 22
A Breaker	ABB/GE	A2A125TW	Plastic Molded Case, 3 lbs.	125A	23
		A2*	Plastic Molded Case, 3 lbs.	125A-225A	Interp.
		A2A225TW	Plastic Molded Case, 3 lbs.	225A	21
Thermal Magnetic Circuit Breaker	ABB/GE	THQB2110	Plastic Molded Case, 1 lb.		21, 23
		THQB32100	Plastic Molded Case, 1 lb.		21, 23

Notes:
1. ABB or GE may be branded on product, products are identical.

SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENT MATRIX

2000903-CR-001-R2



Manufacturer: ABB Model Line: A-Series Lighting Panel & Spectra Power Panel		Table Description: Circuit Breakers			TABLE 3	
Building Code: CBC 2025		Seismic Certification Limits:				
		$S_{DS} = 2.0g$	$z/h = 1.0$	$R_{\mu} = 1.3$	$H_f = 3.5$	$I_p = 1.5$
		$S_{DS} = 2.0g$	$z/h = 0.0$	$R_{\mu} = 1.0$	$H_f = 1.0$	
Component Type	Manufacturer ¹	Model	Description	Notes	UUT	
Record Plus	ABB/GE	FBC16TE015RV	Plastic Molded Case	15A	24	
		FBV36TE015R2	Plastic Molded Case, 3 lbs.	15A	14	
		FBV36TE100R2	Plastic Molded Case, 3 lbs.	100A	14	
		FBV36TE100R	Plastic Molded Case, 3 lbs.	100A	8	
		FB*/, FE*/, FG*/	Plastic Molded Case, 3-15 lbs.	15A - 600A	Interp.	
		FEN34AA0250R	Plastic Molded Case, 3 lbs.	250A	4	
		FGN36AA0250R0	Plastic Molded Case, 15 lbs.	250A	14	
		FGN36KA0600	Plastic Molded Case, 15 lbs.	600A	18	
		FGN36AA0600R0	Plastic Molded Case, 15 lbs.	600A	3, 6	
		FEB34AAA0225R	Plastic Molded Case, 15 lbs.	225A	1	
FBH36TW100RV	Plastic Molded Case	100A	24			
XT Breakers ²	ABB/GE	XT1NU3015AFD000XXX	Plastic Molded Case, 2 lbs.	Single or Double Plate Mounting	23	
		XT1NU3125AFD000XXX	Plastic Molded Case, 2 lbs.	Single or Double Plate Mounting	21	
		XT2HU3015AFF000XXX	Plastic Molded Case, 3.5	15A, Single or Double (UUT) Plate Mounting	24	
		XT2HU3125BFFF000XXX	Plastic Molded Case, 4.5	125A, Single or Double (UUT) Plate Mounting	24	
		XT4NU3250AFL000XXX	Plastic Molded Case, 4 lbs.	Single Plate Mounting	20	
		XT5SU3400BFK000XXX	Plastic Molded Case, 10 lbs.	Single Plate Mounting	20	
		XT5SU3600BFK000XXX	Plastic Molded Case, 10 lbs.		19	
		XT1*/XT2*/XT4*/XT5*/XT6*	Plastic Molded Case, 2-19 lbs.		Interp.	
XT6NU3800BFK000XXX	Plastic Molded Case, 19 lbs.		19			

- Notes:**
- ABB or GE may be branded on product, products are identical.
 - All X's are part of the model numbers and aren't intended to be replaced by other characters or options.

SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENT MATRIX

2000903-CR-001-R2



Manufacturer: ABB	Table Description: Power Management System & Accessories	TABLE 4
Model Line: A-Series Lighting Panel & Spectra Power Panel		

Building Code: CBC 2025	Seismic Certification Limits:	$S_{DS} = 2.0 g$	$z/h = 1.0$	$R_{\mu} = 1.3$	$H_f = 3.5$	$I_p = 1.5$
		$S_{DS} = 2.0 g$	$z/h = 0.0$	$R_{\mu} = 1.0$	$H_f = 1.0$	

Component Type	Manufacturer	Model	Description	Notes	UUT
Lighting Panel & Spectra Main Metering/ Electronic Metering Kits	ABB/GE	EPM2200/ PL2200B1X	Plastic Molded Case, 10 lbs.		14
		2*, 3*, 5*, 6*, 7*, 9*, PL pre-fix*, PQM*, T20CA*, EPM*	Plastic Molded Case, 10 lbs.		Interp.
		PQMII-T20-CA	Plastic Molded Case, 10 lbs.		16
		EPM 4500/PL450027734C08LMOD	Plastic Molded Case, 15 lbs.		15
		AMP1B1	Plastic Molded Case		20
		AMP1H5	Plastic Molded Case		19
		RGM40-60-mV-V2-RS485	RGM40 metering assembly, <5 lbs.		25
		R40M*	RGM40 metering assembly, <5 lbs.		Interp.
		RLPMD5BCM842RES/ RGLPMD5BCM842RES	Metering assembly, 20.5 lbs.		25
		RLPM*/RGLPM*	Metering assembly, 20.5 lbs.		Interp.
		RLPPSCOMM2/RGLPPSCOMM2	Power supply assembly, 5 lbs.		25
		RLPPS*/RGLPPS*	Power supply assembly, 5 lbs.		Interp.
	Veris	ASPMETERA84AE	Plastic Molded Case		19
	Trendpoint	PREMQENKH	Plastic Molded Case		22
Process Control Unit (PCU) - Meter Head 1 and 2	ABB/GE	APCU151FNDPDHH	Carbon Steel, Meter Head 2, 40 lbs.	Two PCUs tested; One mounted on meter head 1 and one mounted on meter head 2	16

Notes:
1. ABB or GE may be branded on product, products are identical.

SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENT MATRIX

2000903-CR-001-R2



Manufacturer: ABB	Table Description: Power Management System & Accessories	TABLE 4
Model Line: A-Series Lighting Panel & Spectra Power Panel		

Building Code: CBC 2025	Seismic Certification Limits:	$S_{DS} = 2.0 g$	$z/h = 1.0$	$R_{\mu} = 1.3$	$H_f = 3.5$	$I_p = 1.5$
		$S_{DS} = 2.0 g$	$z/h = 0.0$	$R_{\mu} = 1.0$	$H_f = 1.0$	

Component Type	Manufacturer	Model	Description	Notes	UUT
Surge Protective Devices-SPD/ Transient Voltage Suppressor-TVSS	ABB/GE	TPME277Y06PP	Carbon Steel and Plastic, 8 lbs.		15
		TPHE*, TPME*, ATME*, ATHE*, THE*, TPHE*, TME*, TPLE*, TLE*, ATLE*	Carbon Steel and Plastic, 8-30 lbs.		Interp.
		TPHE120S30PP	Carbon Steel and Plastic, 30lbs.		15
Generator Connection Receptacles	Hubbell	HBLFRSBN	1 lb.		17
Lighting Contactor	ABB/GE	CR1600MCC	2 lbs.		12
Panel Board Switch	ABB/GE	ADS36120LB	Carbon Steel, 30 lbs.		13
Current Transformer	Trendpoint	CTTG-125			22
		PREMQSPCT751N			22
	ABB/GE	3P56-SD-12871EC			19
		E682D401V3			20

Notes:
1. ABB or GE may be branded on product, products are identical.

UNIT UNDER TEST (UUT) SUMMARY SHEET

2000903-CR-001-R2



Manufacturer: ABB

Model Line: A-Series Lighting Panel & Spectra Power Panel

UUT	Unit Description (mounting)	Report Number (UUT#)	Testing Lab	Tested	ISO 17025?	S _{DS}	z/h	R _μ	H _f	I _p
1	225A AS Panel (ASF3122GB)	EL: 10276 (UUT1)	Clark Testing	13-Aug. 2012	Yes	2.00 2.00	1.0 0.0	1.3 1.0	3.5 1.0	1.5
2	800A AS Panel (ASF3368KBX)	EL: 10276 (UUT2)	Clark Testing	13-Aug. 2012	Yes	2.00 2.00	1.0 0.0	1.3 1.0	3.5 1.0	1.5
3	225A AS Panel (ASF3124DTX)	EL: 10276 (UUT3)	Clark Testing	13-Aug. 2012	Yes	2.00 2.00	1.0 0.0	1.3 1.0	3.5 1.0	1.5
4	225A AS Panel (ASF3122GT)	EL: 10276 (UUT4)	Clark Testing	13-Aug. 2012	Yes	2.00 2.00	1.0 0.0	1.3 1.0	3.5 1.0	1.5
5	NOT USED									
6	225A AS Panel (ASF3122GTX)	EL: 10276 (UUT6)	Clark Testing	13-Aug. 2012	Yes	2.00 2.00	1.0 0.0	1.3 1.0	3.5 1.0	1.5
7	225A AQ Panel (AQL3422ATX)	52868-1 (UUT7)	Element - Huntsville ¹	2-Nov. 2005	Yes	2.00 2.00	1.0 0.0	1.3 1.0	3.5 1.0	1.5
8	225A AD Panel (ADF3842MTX)	52868-1 (UUT8)	Element - Huntsville ¹	1-Nov. 2005	Yes	2.00 2.00	1.0 0.0	1.3 1.0	3.5 1.0	1.5
9	NOT USED									
10	225A AQC Panel (AQC3422MTX)	52868-1 (UUT10)	Element - Huntsville ¹	2-Nov. 2005	Yes	2.00 2.00	1.0 0.0	1.3 1.0	3.5 1.0	1.5
11	NOT USED									
12	225A AQ Panel (AQF3302MTSX)	52868-1 (UUT12)	Element - Huntsville ¹	2-Nov. 2005	Yes	2.00 2.00	1.0 0.0	1.3 1.0	3.5 1.0	1.5

Notes:

1. Element - Huntsville was formerly Wyle Laboratories.

UNIT UNDER TEST (UUT) SUMMARY SHEET

2000903-CR-001-R2



Manufacturer: ABB

Model Line: A-Series Lighting Panel & Spectra Power Panel

UUT	Unit Description (mounting)	Report Number (UUT#)	Testing Lab	Tested	ISO 17025?	S _{DS}	z/h	R _μ	H _f	I _p
13	Spectra Fusible Switch Power Panel (APB4308)	46922-1 (E1)	Element - Huntsville ¹	3-April 1998	Yes	2.00 2.00	1.0 0.0	1.3 1.0	3.5 1.0	1.5
14	250A Spectra Power Panel (APNB1802FA)	JID: 2346B Rev.2 (UUT1)	Clark Testing	6-June 2013	Yes	2.50 2.50	1.0 0.0	1.3 1.0	3.5 1.0	1.5
15	1200A Spectra Power Panel (APNB4312FB4TA)	JID: 2346B Rev.2 (UUT2)	Clark Testing	6-June 2013	Yes	2.50 2.50	1.0 0.0	1.3 1.0	3.5 1.0	1.5
16	250A Spectra Power Panel (APN2302FH1A)	JID: 2346B Rev.2 (UUT3)	Clark Testing	5-June 2013	Yes	2.50 2.50	1.0 0.0	1.3 1.0	3.5 1.0	1.5
17	1200A GenTower Outdoor Spectra Power Panel (GQCP208120TRR)	JID: 2346B Rev.2 (UUT4)	Clark Testing	7-June 2031	Yes	2.50 2.50	1.0 0.0	1.3 1.0	3.5 1.0	1.5
18	1200A Spectra Outdoor Power Panel (APNB2812FB4A)	JID: 2346B Rev.2 (UUT5)	Clark Testing	5-June 2013	Yes	2.50 2.50	1.0 0.0	1.3 1.0	3.5 1.0	1.5
19	AS Panelboard AL Bus NEMA 3R (ASF3308KBX)	JID 19-00474, Rev. 2 (UUT1)	Clark Testing	1-Aug. 2019	Yes	2.00 2.50	1.0 0.0	1.3 1.0	3.5 1.0	1.5
20	AS Panelboard AL Bus NEMA 2 (ASF3428KBX)	JID 19-00474, Rev. 2 (UUT2)	Clark Testing	1-Aug. 2019	Yes	2.00 2.50	1.0 0.0	1.3 1.0	3.5 1.0	1.5
21	AS Panelboard CU Bus NEMA 4X (AQF3121KBX)	JID 19-00474, Rev. 2 (UUT3)	Clark Testing	2-Aug. 2019	Yes	2.00 2.50	1.0 0.0	1.3 1.0	3.5 1.0	1.5
22	AS Panelboard CU Bus NEMA 4X (ASF3248BX)	JID 19-00474, Rev. 2 (UUT4)	Clark Testing	1-Aug. 2019	Yes	2.00 2.50	1.0 0.0	1.3 1.0	3.5 1.0	1.5
23	AQ Panelboard Al Bus NEMA 3R (AQF3121MBX)	JID 19-00474, Rev. 2 (UUT5)	Clark Testing	2-Aug. 2019	Yes	2.00 2.50	1.0 0.0	1.3 1.0	3.5 1.0	1.5

Notes:

1. Element - Huntsville was formerly Wyle Laboratories.

UNIT UNDER TEST (UUT) SUMMARY SHEET

2000903-CR-001-R2



Manufacturer: ABB	<h2>UUT 3</h2>
Product Type: Panelboards	
Model Line: A-Series Lighting Panel & Spectra Power Panel	
Model Number: 225A AS Panel (ASF3124DTX)	
Serial Number: n/a	
Test Report: EL: 10276 (UUT3)	

UUT Properties						
Weight (lbs.)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
130	8.0	20.0	56.0	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information										
Building Code	Test Criteria	S _{DS} (g)	z/h	R _μ	H _f	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2025	ICC-ES AC156-24	2.00	1.0	1.3	3.5	1.5	3.20	2.15	1.33	0.53
		2.00	0.0	1.0	1.0					

Product Construction Summary: 16 ga Cold-Formed Carbon Steel - NEMA 1	Test Mounting Details:
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Options/Subcomponent Summary:		
Description	Mfr.	Part Number
BUS Aluminum	ABB/GE	Al-0600
BUS Copper	ABB/GE	Cu-0800
Core Line Breaker - STEY	ABB/GE	TEYD3015B, TEYD3125B
Record Plus	ABB/GE	FGN36AA0600R0
Spectra Breaker	ABB/GE	SKHA36AT0800



UUT3 was wall mounted-rigid to a fixture using four (4) 5/16"-18 Grade 5 hex head bolts with flat washers and lock washers. Bolts were torqued to 18 ft./lbs.
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test. Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET


2000903-CR-001-R2



Manufacturer:	ABB	UUT 6
Product Type:	Panelboards	
Model Line:	A-Series Lighting Panel & Spectra Power Panel	
Model Number:	225A AS Panel (ASF3122GTX)	
Serial Number:	n/a	
Test Report:		EL: 10276 (UUT6)

UUT Properties						
Weight (lbs.)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
188	6.0	20.0	56.0	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information										
Building Code	Test Criteria	S _{DS} (g)	z/h	R _μ	H _f	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2025	ICC-ES AC156-24	2.00	1.0	1.3	3.5	1.5	3.20	2.15	1.33	0.53
		2.00	0.0	1.0	1.0					

Product Construction Summary:	Test Mounting Details:
16 ga Cold-Formed Carbon Steel - NEMA 4	

Options/Subcomponent Summary:		
Description	Mfr.	Part Number
BUS Aluminum	ABB/GE	Al-0600
BUS Copper	ABB/GE	Cu-0800
Core Line Breaker - STEY	ABB/GE	TEYD3015B, TEYD3125B
Record Plus	ABB/GE	FGN36AA0600R0
Spectra Breaker	ABB/GE	SKHA36AT0800

UUT6 was wall mounted-rigid to a fixture using four (4) 3/8"-16 Grade 5 hex head bolts with flat washers and lock washers. Bolts were torqued to 31 ft./lbs.
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test. Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

2000903-CR-001-R2



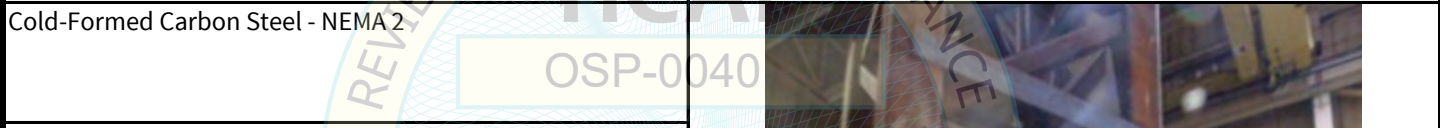
Manufacturer:	ABB	UUT 20
Product Type:	Panelboards	
Model Line:	A-Series Lighting Panel & Spectra Power Panel	
Model Number:	AS Panelboard AL Bus NEMA 2 (ASF3428KBX)	
Serial Number:	n/a	
Test Report:		JID 19-00474, Rev. 2 (UUT2)

UUT Properties						
Weight (lbs.)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
287	6.0	20.0	89.0	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information										
Building Code	Test Criteria	S _{DS} (g)	z/h	R _μ	H _f	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2025	ICC-ES AC156-24	2.00	1.0	1.3	3.5	1.5	3.20	2.15	1.67	0.67
		2.50	0.0	1.0	1.0					

Product Construction Summary: Cold-Formed Carbon Steel - NEMA 2

Test Mounting Details:



Options/Subcomponent Summary:

Description	Mfr.	Part Number
BUS Aluminum	ABB/GE	AI-0800
Core Line Breaker - STEY	ABB/GE	TEYL1015B, TEYL3125B
Current Transformer	ABB/GE	E682D401V3
Power Electronic Meter Kit	ABB/GE	AMP1B1
XT Breakers	ABB/GE	XT4NU3250AFL000XXX, XT5SU3400BFBK000XXX



UUT20 was wall mounted-rigid to a fixture using four (4) 5/16"-18 bolts with flat washers and lock washers. Bolts were torqued to 20 ft./lbs. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test. Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET


2000903-CR-001-R2



Manufacturer:	ABB	<h2>UUT 21</h2>
Product Type:	Panelboards	
Model Line:	A-Series Lighting Panel & Spectra Power Panel	
Model Number:	AS Panelboard CU Bus NEMA 4X (AQF3121KBX)	
Serial Number:	n/a	
Test Report:		JID 19-00474, Rev. 2 (UUT3)

UUT Properties						
Weight (lbs.)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
110	8.0	20.0	38.0	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information										
Building Code	Test Criteria	S _{DS} (g)	z/h	R _μ	H _f	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2025	ICC-ES AC156-24	2.00	1.0	1.3	3.5	1.5	3.20	2.15	1.67	0.67
		2.50	0.0	1.0	1.0					

Product Construction Summary:	Test Mounting Details:
Stainless Steel - NEMA 4X	

Options/Subcomponent Summary:		
Description	Mfr.	Part Number
A Breaker	ABB/GE	A2A225TW
BUS Copper	ABB/GE	Cu-0125
Thermal Magnetic Circuit Breaker	ABB/GE	THQB2110, THQB32100
XT Breakers	ABB/GE	XT1NU3125AFD000XXX

UUT21 was wall mounted-rigid to a fixture using four (4) 3/8"-16 bolts with flat washers and lock washers. Bolts were torqued to 31 ft./lbs. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test. Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET


2000903-CR-001-R2



Manufacturer:	ABB	UUT 22
Product Type:	Panelboards	
Model Line:	A-Series Lighting Panel & Spectra Power Panel	
Model Number:	AS Panelboard CU Bus NEMA 4X (ASF3248BX)	
Serial Number:	n/a	
Test Report:		JID 19-00474, Rev. 2 (UUT4)

UUT Properties						
Weight (lbs.)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
316	8.0	30.0	89.0	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information										
Building Code	Test Criteria	S _{DS} (g)	z/h	R _μ	H _f	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2025	ICC-ES AC156-24	2.00	1.0	1.3	3.5	1.5	3.20	2.15	1.67	0.67
		2.50	0.0	1.0	1.0					

Product Construction Summary:	Test Mounting Details:
Stainless Steel - NEMA 4X	

Options/Subcomponent Summary:		
Description	Mfr.	Part Number
BUS Copper	ABB/GE	Cu-0800
Core Line Breaker - STEY	ABB/GE	TEYL1015B, TEYL3125B, TJJ436600WL
Current Transformer	Trendpoint	CTTG-125, PREMQSPCT751N
Power Electronic Meter Kit	Trendpoint	PREMQENKH
Spectra Breaker	ABB/GE	SKHA36AT0800

UUT22 was wall mounted-rigid to a fixture using four (4) 3/8"-16 bolts with flat washers and lock washers. Bolts were torqued to 30ft./lbs. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test. Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

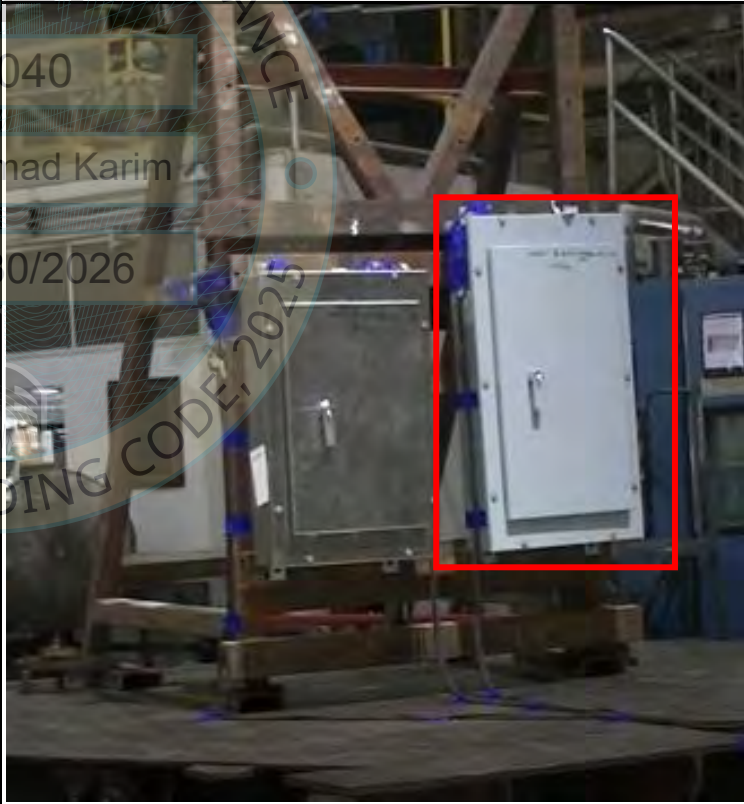
2000903-CR-001-R2



Manufacturer:	ABB	<h2>UUT 23</h2>
Product Type:	Panelboards	
Model Line:	A-Series Lighting Panel & Spectra Power Panel	
Model Number:	AQ Panelboard Al Bus NEMA 3R (AQF3121MBX)	
Serial Number:	n/a	
Test Report:		JID 19-00474, Rev. 2 (UUT5)

UUT Properties						
Weight (lbs.)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
78	8.0	20.0	32.0	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information										
Building Code	Test Criteria	S _{DS} (g)	z/h	R _μ	H _f	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2025	ICC-ES AC156-24	2.00	1.0	1.3	3.5	1.5	3.20	2.15	1.67	0.67
		2.50	0.0	1.0	1.0					

Product Construction Summary:	Test Mounting Details:
Cold-Formed Carbon Steel - NEMA 3R	

Options/Subcomponent Summary:		
Description	Mfr.	Part Number
A Breaker	ABB/GE	A2A125TW
BUS Aluminum	ABB/GE	Al-0125
Thermal Magnetic Circuit Breaker	ABB/GE	THQB2110, THQB32100
XT Breakers	ABB/GE	XT1NU3015AFD000XXX

UUT23 was wall mounted-rigid to a fixture using four (4) 3/8"-16 bolts with flat washers and lock washers. Bolts were torqued to 31 ft./lbs. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test. Contents were included in testing per operating conditions.

