APPLICATION FOR OSHPD SPECIAL SEISMIC CERTIFICATION PREAPPROVAL (OSP)

OFFICE USE ONLY	
APPLICATION #:	OSP – 0083 – 10

OSHPD Special Seismic Certification Preapproval (OSP)

Type: ☐ New ☒ Renewal

Manufacturer Information

Manufacturer: ABB

Manufacturer's Technical Representative: James Kluck, Product Manager

Mailing Address: PO Box 372, Milwaukee, WI 53201-0372

Telephone: (262) 785-3200 Email: james.e.kluck@us.abb.com

Product Information

Product Name: ACS550

Product Type: Variable Frequency Drives (VFDs)

Product Model Number: ACB530, ACH550, ACQ550. AYK550, ACS550
(List all unique product identification numbers and/or part numbers)

General Description: Wall and Floor Mounted Variable Frequency Drives that can control an AC motor with either VFD or Bypass.

Mounting Description: Rigid floor mounted; Rigid and flexible surfaced mounted on a wall.

Applicant Information

Applicant Company Name: The VMC Group

Contact Person: John P Giuliano, PE

Mailing Address: 113 Main Street, Bloomingdale, NJ 07403

Telephone: 973-838-1780 Email: john.giuliano@thevmcgroup.com

I hereby agree to reimburse the Office of Statewide Health Planning and Development review fees in accordance with the California Administrative Code, 2013.

Signature of Applicant: _____ Date: _____

Title: President Company Name: The VMC Group

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

Company Name: The VMC Group

Name: Mr. Ken Tarlow California License Number: SE2851

Mailing Address: 980 9th Street, 16th Floor, Sacramento, CA 95814

Telephone: 916-449-9918 Email: ken.tarlow@thevmcgroup.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: UC Berkeley

Contact Name: Wesley Neighbour

Mailing Address: 1301 South 46th Street, Building 420, Richmond, CA 94804

Telephone: 510-665-3409 Email: wdn@berkeley.com

Seismic Parameters

Design in accordance with ASCE 7-10 Chapter 13: ☒ Yes ☐ No

Design Basis of Equipment or Components (F_p/W_p) = 1.5 (R_p=6.0); 4.5 (R_p=2.0)

S_{DS} (Design spectral response acceleration at short period, g) = 2.0

a_p (In-structure equipment or component amplification factor) = 2.5

R_p (Equipment or component response modification factor) = 6.0 (rigid floor/wall mount); 2.0 (flexible wall mount)

Ω_0 (System overstrength factor) = 2.5

I_p (Importance factor) = 1.5

z/h (Height factor ratio) = 1.0

Equipment or Component Natural Frequencies (Hz) = See Attached Matrix

Overall dimensions and weight (or range thereof) = See Attached Matrix

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) =

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, 2010: ☐ Yes ☒ No

List of Attachments Supporting Special Seismic Certification

☒ Test Report(s) ☒ Drawings ☐ Calculations ☒ Manufacturer's Catalog

☐ Other(s) (Please Specify):

OSHPD Approval (For Office Use Only) – Approval Expires on December 31, 2019

Signature: Date: 4/16/2014

Print Name: M. R. Karim Title: SHFR

Special Seismic Certification Valid Up to : S_{DS} (g) = 2.0 z/h = 1.0

Condition of Approval (if applicable):

Table 1 - Certified Drive Matrix

System Voltage [V]	Model	Construction	ABB Model Number	Normal Duty Ratings		Heavy Duty Ratings		Frame Size	Max System Weight Type 12 [lbs]	Product Manufacturer	Mounting	Tested / Interpolated / Extrapolated
				Current [A]	HP	Current [A]	HP					
208 / 240	ACB530, ACH550, ACQ550, AYK550, ACS550	-01, -UH, -U1, -U0 -OEMUx where OEM = any OEM code	ACx550-XX-04A6-2	4.6	1	3.5	0.75	R1	18	ABB	Wall	**UUT 7A, UUT 7B**
			ACx550-XX-06A6-2	6.6	1.5	4.6	1	R1	18	ABB	Wall	Interpolated
			ACx550-XX-07A5-2	7.5	2	6.6	1.5	R1	18	ABB	Wall	Interpolated
			ACx550-XX-012A-4	11.8	3	7.5	2	R1	18	ABB	Wall	Interpolated
			ACx550-XX-017-A2	16.7	5	11.8	3	R1	18	ABB	Wall	Interpolated
			ACx550-XX-024A-2	24.2	7.5	16.7	5	R2	25	ABB	Wall	Interpolated
			ACx550-XX-031A-2	30.8	10	24.2	7.5	R2	25	ABB	Wall	Interpolated
			ACx550-XX-046A-2	46.2	15	30.8	10	R3	41	ABB	Wall	Interpolated
			ACx550-XX-059A-2	59.4	20	46.2	15	R3	41	ABB	Wall	**UUT 1A, UUT 1B**
			ACx550-XX-075A-2	74.8	25	59.4	20	R4	58	ABB	Wall	Interpolated
			ACx550-XX-088A-2	88	30	74.8	25	R4	58	ABB	Wall	Interpolated
			ACx550-XX-114A-2	114	40	88	30	R4	58	ABB	Wall	Interpolated
			ACx550-XX-143A-2	143	50	114	40	R6	190	ABB	Wall	Interpolated
			ACx550-XX-178A-2	178	60	150	50	R6	190	ABB	Wall	Interpolated
			ACx550-XX-221A-2	221	75	178	60	R6	190	ABB	Wall	Interpolated
			ACx550-XX-248A-2	248	100	192	75	R6	190	ABB	Wall	Interpolated
480	ACB530, ACH550, ACQ550, AYK550, ACS550	-01, -02, -UH, -U1, -U0 -OEMUx where OEM = any OEM code	ACx550-XX-03A3-4	3.3	1.5	2.4	1	R1	18	ABB	Wall	Interpolated
			ACx550-XX-04A1-4	4.1	2	3.3	1.5	R1	18	ABB	Wall	Interpolated
			ACx550-XX-06A9-4	6.9	3	5.4	2	R1	18	ABB	Wall	Interpolated
			ACx550-XX-08A8-4	8.8	5	6.9	3	R1	18	ABB	Wall	Interpolated
			ACx550-XX-012A-4	11.9	7.5	8.8	5	R1	18	ABB	Wall	Interpolated
			ACx550-XX-015A-4	15.4	10	11.9	7.5	R2	25	ABB	Wall	Interpolated
			ACx550-XX-023A-4	23	15	15.4	10	R2	25	ABB	Wall	Interpolated
			ACx550-XX-031A-4	31	20	23	15	R3	41	ABB	Wall	Interpolated
			ACx550-XX-038A-4	38	25	31	20	R3	41	ABB	Wall	Interpolated
			ACx550-XX-045A-4	44	30	38	25	R3	41	ABB	Wall	**UUT 6A, UUT 6B**
			ACx550-XX-059A-4	59	40	44	30	R4	58	ABB	Wall	Interpolated
			ACx550-XX-072A-4	72	50	59	40	R4	58	ABB	Wall	Interpolated
			ACx550-XX-078A-4	77	60	65	50	R4	58	ABB	Wall	Interpolated
			ACx550-XX-097A-4	96	75	77	60	R4	58	ABB	Wall	**UUT 5A, UUT 5B**
			ACx550-XX-125A-4	124	100	96	75	R5	85	ABB	Wall	Interpolated
			ACx550-XX-157A-4	157	125	124	100	R6	190	ABB	Wall	Interpolated
			ACx550-XX-180A-4	180	150	156	125	R6	190	ABB	Wall	Interpolated
			ACx550-XX-246A-4	245	200	192	150	R6	190	ABB	Wall	**UUT 2A, UUT 2B**
			ACx550-XX-316A-4	316	250	240	200	R8	827	ABB	Floor	**UUT-3**
			ACx550-XX-368A-4	368	300	302	250	R8	827	ABB	Floor	Interpolated
			ACx550-XX-414A-4	414	350	368	300	R8	827	ABB	Floor	Interpolated
			ACx550-XX-486A-4	486	400	414	350	R8	827	ABB	Floor	Interpolated
			ACx550-XX-526A-4	526	450	477	400	R8	827	ABB	Floor	Interpolated
			ACx550-XX-602A-4	602	500	515	450	R8	827	ABB	Floor	Interpolated
			ACx550-XX-645A-4	645	550	590	500	R8	827	ABB	Floor	**UUT-4**

NOTE: Drive enclosures are installed inside NEMA 1, 12, or 3R cabinet (See Table 2)

01-Standard wall mount

UH-Same as U1 except SW for HVAC applications

02-PC version

U0-Same as U1/UH/01 except generic version to be mounted inside enclosure

U1-01 with US version SW (defaults to 60Hz and HP instead 50

OEMUx-OEM version of the ones listed above with OEM specific SW/configuration (addition of option modules where applicable)

Table 1 - Certified Drive Matrix (Continued)

System Voltage [V]	Model	Construction	ABB Model Number	Normal Duty Ratings		Heavy Duty Ratings		Frame Size	Max System Weight Type 12 [lbs]	Product Manufacturer	Mounting	Tested / Interpolated / Extrapolated
				Current [A]	HP	Current [A]	HP					
600	ACB530, ACH550, ACQ550, AYK550, ACS550	-01, -UH, -U1, -OEMUx where OEM = any OEM code	ACx550-XX-02A7-6	2.7	2	2.4	1.5	R2	25	ABB	Wall	Extrapolated
			ACx550-XX-03A9-6	3.9	3	2.7	2	R2	25	ABB	Wall	Extrapolated
			ACx550-XX-06A1-6	6.1	5	3.9	3	R2	25	ABB	Wall	Extrapolated
			ACx550-XX-09A0-6	9	7.5	6.1	5	R2	25	ABB	Wall	Extrapolated
			ACx550-XX-011A-6	11	10	9	7.5	R2	25	ABB	Wall	Extrapolated
			ACx550-XX-017A-6	17	15	11	10	R2	25	ABB	Wall	Extrapolated
			ACx550-XX-022A-6	22	20	17	15	R3	41	ABB	Wall	Extrapolated
			ACx550-XX-027A-6	27	25	22	20	R3	41	ABB	Wall	Extrapolated
			ACx550-XX-032A-6	32	30	27	25	R4	58	ABB	Wall	Extrapolated
			ACx550-XX-041A-6	41	40	32	30	R4	58	ABB	Wall	Extrapolated
			ACx550-XX-052A-6	52	50	41	40	R4	58	ABB	Wall	Extrapolated
			ACx550-XX-062A-6	62	60	52	50	R4	58	ABB	Wall	Extrapolated
			ACx550-XX-077A-6	77	75	62	60	R6	190	ABB	Wall	Extrapolated
			ACx550-XX-099A-6	99	100	77	75	R6	190	ABB	Wall	Extrapolated
			ACx550-XX-125A-6	125	125	99	100	R6	190	ABB	Wall	Extrapolated
			ACx550-XX-144A-6	144	150	125	125	R6	190	ABB	Wall	Extrapolated

NOTE: Drive enclosures are installed inside NEMA 1, 12, or 3R cabinet (See Table 2)

01-Standard wall mount
UH-Same as U1 except SW for HVAC applications

02-PC version
U0-Same as U1/UH/01 except generic version to be mounted inside enclosure

U1-01 with US version SW (defaults to 60Hz and HP instead 50
OEMUx-OEM version of the ones listed above with OEM specific SW/configuration (addition of option modules where applicable)

Table 2 - Certified Cabinet Matrix

Cabinet ID	Drive Frame	Max Height [in]	Max Width [in]	Max Depth [in]	Max Cabinet Weight [lbs]	Type Rating	Panel Material / Thickness	Mounting Configuration	Product Manufacturer	Tested / Interpolated / Extrapolated
VX1-1	R1	40.2	5.4	10.1	32	1	Carbon Steel / 1.5 mm Thick	Wall	ABB	Extrapolated
PX1-1 PX12-1	R1	29.3	8.7	11.2	37	1 12	Carbon Steel / 1.5 mm Thick	Wall	ABB	Extrapolated
VX1-2	R2	44.1	5.4	10.3	40	1	Carbon Steel / 1.5 mm Thick	Wall	ABB	Extrapolated
PX1-2 PX12-2	R2	33.2	8.7	11.6	46	1 12	Carbon Steel / 1.5 mm Thick	Wall	ABB	Extrapolated
VX1-3	R2 / **R3**	47.7	8.4	10.9	70	1	Carbon Steel / 1.5 mm Thick	Wall	ABB	**UUT 1A, UUT 1B**
BX1-1 BX12-1	R1	33.2	17.4	13.5	78	1 12	Carbon Steel / 1.5 mm Thick	Wall	ABB	Interpolated
PX1-3 PX12-3	R3	40.6	10.5	11.9	79	1 12	Carbon Steel / 1.5 mm Thick	Wall	ABB	Interpolated
BX1-2 BX12-2	R2	33.2	17.4	13.5	84	1 12	Carbon Steel / 1.5 mm Thick	Wall	ABB	Interpolated
BX1-3 BX12-3	R2	33.2	17.4	13.5	84	1 12	Carbon Steel / 1.5 mm Thick	Wall	ABB	Interpolated
VX1-4	R4	51.8	8.4	12.1	92	1	Carbon Steel / 1.5 mm Thick	Wall	ABB	Interpolated
PX1-4 PX12-4	R4	45.8	10.5	13.1	99	1 12	Carbon Steel / 1.5 mm Thick	Wall	ABB	Interpolated
BX1-3 BX12-3	R3	37.4	20.5	15.3	120	**1** 12	Carbon Steel / 1.5 mm Thick	Wall	ABB	**UUT 6A, UUT 6B**
PX3R-1	R1	34	17.8	13.5	128	3R	Carbon Steel / 1.5 mm Thick	Wall	ABB	**UUT 7A, UUT 7B**
BX3R-1	R1	34	17.8	13.5	128	3R	Carbon Steel / 1.5 mm Thick	Wall	ABB	Interpolated
PX3R-2	R2	34	17.8	13.5	134	3R	Carbon Steel / 1.5 mm Thick	Wall	ABB	Interpolated
BX3R-2	R2	34	17.8	13.5	134	3R	Carbon Steel / 1.5 mm Thick	Wall	ABB	Interpolated
BX1-4 BX12-4	R4	37.4	20.5	15.3	138	1 12	Carbon Steel / 1.5 mm Thick	Wall	ABB	Interpolated
PX3R-3	R2 / R3	38.1	20.9	15.3	176	3R	Carbon Steel / 1.5 mm Thick	Wall	ABB	Interpolated
BX3R-3	R2	38.1	20.9	15.3	176	3R	Carbon Steel / 1.5 mm Thick	Wall	ABB	Interpolated
PX3R-4	R4	38.1	20.9	15.3	194	3R	Carbon Steel / 1.5 mm Thick	Wall	ABB	Interpolated
BX3R-4	R4	38.1	20.9	15.3	194	3R	Carbon Steel / 1.5 mm Thick	Wall	ABB	Interpolated
PX3R-5	R4	39	30	15.5	203	3R	Carbon Steel / 1.5 mm Thick	Wall	ABB	Interpolated
BX3R-5	R4	39	30	15.5	213	3R	Carbon Steel / 1.5 mm Thick	Wall	ABB	Interpolated
PX1-5 **PX12-5**	**R4** / R5	54.3	28.1	19	267	1 **12**	Carbon Steel / 1.5 mm Thick	Wall	ABB	**UUT 5A, UUT 5B**
BX1-5 BX12-5	R4	54.3	28.1	19	267	1 12	Carbon Steel / 1.5 mm Thick	Wall	ABB	Interpolated
BX1-6 **BX12-6**	R6	54.3	28.1	19	359	1 **12**	Carbon Steel / 1.5 mm Thick	Wall	ABB	**UUT 2A, UUT 2B**
PX1-6 PX12-6	R6	54.3	28.1	19	359	1 12	Carbon Steel / 1.5 mm Thick	Wall	ABB	Extrapolated
BX3R-6	R4	51	36	21.5	409	3R	Carbon Steel / 1.5 mm Thick	Wall	ABB	Extrapolated
PX1-8 **PX12-8**	R8	93.6	31.7	25.9	1045	1 **12**	Carbon Steel / 1.5 mm Thick	Floor	ABB	**UUT-4**
BX1-8 BX12-8	R8	83.7	31.7	25.9	838	**1** 12	Carbon Steel / 1.5 mm Thick	Floor	ABB	**UUT-3**

Table 3 - Certified Fuses

ABB Part Number	Description	Rating	Weight (Lbs)	Manufacturer	Mounting Configuration	
					Floor	Wall
3AUA567999Z27	FUSE,T DELAY, Transformer -Secondary fusing BC/BD (Type FNM)	5-6/10A, 250V	< 0.2	BUSSMANN COOPER	N/A	Extrapolated
3AUA0000015604	FUSE, CLASS CC, REJECTION	15A, 600 V	< 0.2	BUSSMANN COOPER		UUT 7A, UUT 7B
3AUA0000015605	FUSE, CLASS CC, REJECTION	30A, 600 V	< 0.2	BUSSMANN COOPER		Interpolated
3AUA0000015606	FUSE, CLASS T, REJECTION	60A, 600 V	< 0.2	BUSSMANN COOPER		UUT 6A,UUT 6B
3AUA0000015607	FUSE, CLASS T, REJECTION	100A, 600 V	< 0.2	BUSSMANN COOPER		UUT 1A, UUT 1B
3AUA0000004429	Drive Fuse, 170M1372, 315A	315A	0.3	BUSSMANN COOPER		UUT 2A, UUT 2B
3AUA567002A23	Drive Fuse, 170M1370, 200A	200A	0.3	BUSSMANN COOPER		Extrapolated
64690647	Drive Fuse	400A	0.5	BUSSMANN COOPER	UUT 3	N/A
3AUA0000005225	Drive Fuse	600A	1.0	BUSSMANN COOPER	Interpolated	
3AUA0000005226	Drive Fuse	800A	1.7	BUSSMANN COOPER	UUT 4	

Table 4 - Certified Terminal Blocks

ABB Part Number	Description	Rating	Weight (Lbs)	Manufacturer	Mounting Configuration	
					Floor	Wall
3AUA0000025549	Terminal Block	85A	0.2	Curtis	N/A	UUT 6A, UUT 6B
3AUA0000014810	Terminal Block	115A	0.4	BUSSMANN COOPER		UUT 5A, UUT 5B
3AUA266001B144	Terminal Block	175A	0.4	BUSSMANN COOPER		UUT 1A, UUT 1B

Table 5 - Certified Fans

ABB Part Number	Description	Rating	Weight (Lbs)	Manufacturer	Mounting Configuration	
					Floor	Wall
3AUA0000000148	Fan for top of bypass skeleton (B1 & B2 box)	38-40 CFM	< 0.2	NMB TECHNOLOGIES CORP	N/A	UUT 5A, UUT 5B
3AUA0000012736	For Cab & Drive skeleton	38-40 CFM	< 0.2	DELTA PRODUCTS CORP		UUT 7A, UUT 7B
3AUA0000012849	BXR Cab only	38-40 CFM	0.4	DELTA PRODUCTS CORP		UUT 2A, UUT 2B
3AUA648001B20	FAN,ACS607,115V/60HZ	718 CFM	9.7	DELTA PRODUCTS CORP	UUT 4	N/A

Table 6 - Certified Contactors

ABB Part Number	Description	Rating	Weight (Lbs)	Manufacturer	Mounting Configuration	
					Floor	Wall
3AUA0000014843	Contactor A9-30-10-84	9A / 21A	0.7	ABB	N/A	Extrapolated
3AUA0000014844	Contactor A12-30-10-84	11A / 25A	0.7	ABB		Extrapolated
3AUA0000014846	Contactor A26-30-10-84	28A / 40A	1.0	ABB		Extrapolated
3AUA0000014857	Contactor A30-30-10-84	34A / 50A	1.2	ABB		UUT 6A, UUT 6B
3AUA0000014847	Contactor A40-30-10-84	42A / 60A	2.3	ABB		UUT 6A, UUT 6B
3AUA0000014848	Contactor A50-30-00-84	45A / 80A	2.3	ABB		UUT 1A, UUT 1B
3AUA0000014850	Contactor A75-30-00-84	80A / 105A	2.3	ABB		UUT 1A, UUT 1B
3AUA0000019449	Contactor (A95-30-00-84)	95A / 125A	3.5	ABB		Interpolated
3AUA0000019450	Contactor (A110-30-00-84)	110A / 140A	5.0	ABB		Interpolated
3AUA0000019451	Contactor (A145-30-00-84)	130A / 230A	7.1	ABB		Interpolated
3AUA0000019452	Contactor (A185-30-00-84)	156A / 250A	7.1	ABB		UUT 2A, UUT 2B
3AUA0000019453	Contactor (A210-30-00-84)	192A / 300A	13.0	ABB		Interpolated
3AUA0000019454	Contactor (A260-30-00-84)	248A / 350A	13.0	ABB		UUT 2A, UUT 2B
3AUA0000004886	Contactor AF400-30-11-70	400A	26.0	ABB	UUT 3	N/A
3AUA0000004888	Contactor AF460-30-11-70	460A	26.0	ABB	UUT 3	

Table 7 - Certified Circuit Breakers

ABB Part Number	Description	Rating	Weight (Lbs)	Manufacturer	Mounting Configuration	
					Floor	Wall
3AUA0000065223	T1N025TL Circuit Breaker for PCR	25A	2.3	ABB	N/A	UUT 7A, UUT 7B
3AUA0000065224	T1N040TL Circuit Breaker for PCR	40A	2.3	ABB		Extrapolated
3AUA0000065225	T1N080TL Circuit Breaker for PCR	80A	2.3	ABB		Extrapolated
3AUA0000065226	T1N100TL Circuit Breaker for PCR	100A	2.3	ABB		Extrapolated
3AUA0000026218	T2 Circuit Breaker(SACE)	15A	2.8	ABB		Extrapolated
3AUA0000026219	T2 Circuit Breaker(SACE)	40A	2.8	ABB		Extrapolated
3AUA0000026220	T2 Circuit Breaker(SACE)	60A	2.8	ABB		UUT 6A, UUT 6B
3AUA0000026221	T2 Circuit Breaker(SACE)	100A	2.8	ABB		UUT 1A, UUT 1B
3AUA0000019628	T4 Circuit Breaker, T4N150E5W	150A	6.2	ABB		UUT 5A, UUT 5B
3AUA0000019629	T4 Circuit Breaker, T4N250E5W	250A	6.2	ABB		Interpolated
3AUA0000019630	T5 Circuit Breaker, T5N400E5W	400A	8.6	ABB		UUT 2A, UUT 2B
3AUA0000108996	Circuit Breaker-TypeS T6S600E5W	600A	20.9	ABB	UUT 3	N/A
3AUA0000108997	Circuit Breaker-TypeS T6S800E5W	800A	20.9	ABB	UUT 4	
3AUA0000108998	Circuit Breaker-TypeH T6H800E5W	600A	20.9	ABB	Extrapolated	

Table 8 - Certified Fuse Blocks

ABB Part Number	Description	Rating	Weight (Lbs)	Manufacturer	Mounting Configuration	
					Floor	Wall
3AUA0000031820	Fuse block, mount in enclosure frame	30A, 600 V	0.2	MERSEN USA	N/A	UUT 7A, UUT 7B
3AUA0000016636	Fuse Block, 3P, class T	31-60A, 600 V	0.5	BUSSMANN COOPER		UUT 6A, UUT 6B
BG56790001-4	Fuse block, mount in enclosure frame	60A, 600 V	0.5	BUSSMANN COOPER		Interpolated
3AUA567003A59	Drive Fuse Holder 400A	400A, 1000 V	0.7	BUSSMANN COOPER		UUT 2A, UUT 2B
3AUA567003A95	Fuse Block, 3P, class T	100A, 600 V	1.0	BUSSMANN COOPER		UUT 1A, UUT 2B

Table 9a - Certified Transformers

ABB Part Number	Description	Rating	Weight (Lbs)	Manufacturer	Mounting Configuration	
					Floor	Wall
BG56720008-9	Transformer -Primary fusing BC/BD	3A 600V	< 0.2	BUSSMANN COOPER	N/A	UUT7A, UUT7B
3AUA0000019997	Transformer for control and/or fan	500VA, 380-500V/115V	15.0	HAMMOND POWER SOLUTIONS INC	UUT 4	N/A

Table 9b - Certified Transformers

ABB Part Number	Coil Material
BG56720008-9	Copper
3AUA0000019997	

Table 10 - Certified Disconnect Switches

ABB Part Number	Description	Rating	Weight (Lbs)	Manufacturer	Mounting Configuration	
					Floor	Wall
3AUA0000049775	Disconnect Switch	40A	0.2	ABB	N/A	UUT 7A, UUT 7B
3AUA0000049774	Disconnect Switch	63A	0.6	ABB		Interpolated
3AUA0000049776	Disconnect Switch	80A	0.6	ABB		UUT1A, UUT 1B, UUT 6A, UUT 6B
3AUA0000049777	Disconnect Switch	100A	0.8	ABB		Interpolated
3AUA0000016618	Disconnect Switch	125A	2.4	ABB		Interpolated
3AUA0000019627	Disconnect Switch	200A	1.2	ABB		Interpolated
3AUA0000019631	Disconnect Switch	400A	8.6	ABB		UUT 2A, UUT 2B
3AUA0000014729	Disconnect Switch	800A	20.9	ABB	UUT 4	N/A
3AUA0000109909	Disconnect Switch	800A	20.9	ABB	UUT 4	

Table 11 - Certified Filters

ABB Part Number	Description	Rating or Material	Weight (Lbs)	Manufacturer	Mounting Configuration	
					Floor	Wall
3AUA0000004887	Filter, Air Precut 150x300xx12.5	polyester/plastic	< 0.2	Tex Air	N/A	UUT 2A, UUT 2B, UUT5A, UUT 5B
3AUA0000006722	FILTER, 500MM UL TYPE 12	polyester/plastic	< 0.2	Tex Air	UUT 4	N/A
3AUA0000006723	FILTER MATERIAL-MAIN DOORS, R7-8	polyester/plastic	< 0.2	Tex Air	UUT 4	N/A

Table 12 - Certified Current Transducers

ABB Part Number	Description	Rating	Weight (Lbs)	Manufacturer	Mounting Configuration	
					Floor	Wall
3AUA0000014759	Current Transformer (CT)	25A	0.4	ABB	N/A	UUT 7A, UUT 7B
3AUA0000014760	Current Transformer (CT)	75A	0.4	ABB		UUT 1A, UUT 1B, UUT 6A, UUT 6B
3AUA0000004443	Current Transformer (CT)	300:5	0.4	AMRAN INC		Extrapolated
3AUA476001B24	Current Transformer (CT)	200:5	0.4	AMRAN INC		UUT 5A, UUT 5B
3AUA476001B25	Current Transformer (CT)	500:5	1.0	AMRAN INC	UUT 3, UUT 4	UUT 2A, UUT 2B

Table 13 - Certified Service Switches - Type Code +F267

ABB Part Number	Description	Rating	Weight (Lbs)	Manufacturer	Mounting Configuration	
					Floor	Wall
3AUA0000049775	Disconnect Switch P B&V	40A	0.2	ABB	N/A	UUT 7A, UUT 7B
3AUA0000049776	Disconnect Switch P B&V	80A	0.6	ABB		UUT 1A, UUT 1B, UUT 6A, UUT 6B
3AUA0000049777	Disconnect Switch P B&V	100A	0.8	ABB		Interpolated
3AUA0000016618	Disconnect Switch P B&V	125A	2.4	ABB		Interpolated
3AUA0000014378	Service Switch, T3S225DW	225A	5.5	ABB		Interpolated
3AUA0000019631	Disconnect Molded Case CB, T5H400DW	400A	8.6	ABB		UUT 2A, UUT 2B
3AUA0000109909	Disconnect Switch-TypeDW T6H800DW	800A	20.9	ABB	UUT 3	N/A

Table 14 - Certified Reactors - Type Code +E213

ABB Part Number	Description	Rating	Weight (Lbs)	Manufacturer	Mounting Configuration	
					Floor	Wall
3AUA266001B144	Terminal block to plate, BX	3 pole, 175A	0.4	BUSSMANN COOPER	N/A	UUT 5A, UUT 5B
68587344	Line Reactor, Choke	290/220 UH, 125 A	< 0.2	ABB		UUT 7A, UUT 7B
3AUA0000008409	For new 230V Line Reactor	230Volts at 240Joules	0.4	ABB		Interpolated
3AUA0000008410	For new 480V Line Reactor	480Volts at 470Joules	0.4	ABB		Interpolated
3AUA0000008411	For new 600V Line Reactor	600 Volts at 300 Joules	0.4	ABB		Interpolated
3AUA0000015536	AC line reactor R1 1.2mH,12A continuous-NEW TYPE 12	1.2mH, 12A	5.4	ABB		UUT 7A, UUT 7B
3AUA0000015537	AC line reactor R2 0.42mH,31A continuous-NEW TYPE 12	0.42mH, 31A	6.6	ABB		Interpolated
3AUA0000015538	AC line reactor R3 0.33mH,59A continuous-NEW TYPE 12	0.33mH, 59A	15.8	ABB		UUT 6A, UUT 6B
3AUA0000015539	AC line reactor R4 0.18mH,75A continuous-NEW TYPE 12	0.18mH, 75A	16.0	ABB		Extrapolated

Table 15 - Certified Options

ABB Part Number	Description	Type Code	Weight (Lbs)	Manufacturer	Mounting Configuration	
					Floor	Wall
64606891	DeviceNet (non-byp only)	K451	< 0.2	ABB	Extrapolated	Extrapolated
68469341	DeviceNet Redwood	K451	< 0.2	ABB	Extrapolated	UUT 1A, UUT 1B
3AUA0000037539	Lonworks Redwood	K452	< 0.2	ABB	Extrapolated	Interpolated
64606883	Lonworks	K452	< 0.2	ABB	UUT 4	Interpolated
64606859	Profibus(non-byp only)	K454	< 0.2	ABB	Interpolated	UUT 5A, UUT 5B
68469325	Profibus Redwood	K454	< 0.2	ABB	Interpolated	Interpolated
64751727	ACH Software RETA New(non-byp only)	K466	< 0.2	ABB	UUT 4	UUT 7A, UUT 7B
68469422	ACH Software FENA New	K466	< 0.2	ABB	UUT 3	Interpolated
3AUA0000002051	Pulse Encoder for UH & PX only	L502	< 0.2	ABB	Extrapolated	UUT 5A, UUT 5B
3AUA0000002040	Relay Output Extension	L511	< 0.2	ABB	Extrapolated	UUT 1A, UUT 1B
3AUA0000003489	115/230V input (non-byp only)	L512	< 0.2	ABB	Extrapolated	UUT6A, UUT6B
64751701	RCNA-01 Software Kit	K462	< 0.2	ABB	Software only	
68840830	ACS/H Software RETA-02 New	K467	< 0.2	ABB	Software only	

UUT-01A							
Manufacturer:	ABB						
Model Series:	ACH550-VCR-059-2						
Cabinet Construction Summary:	16 GA Carbon Steel						
Wall Configuration Summary:	16 GA Carbon Steel						

Component Summary:

Item	Dimensions				Lowest Nat. Freq.		
	Depth (in)	Width (in)	Height (in)	Weight (lb)	F-B (Hz)	S-S (Hz)	V (Hz)
Cabinet (Weight Listed is for Package)	10.9	8.4	47.7	70.0	N/A	N/A	N/A
Fuse, 100A,600V							
Terminal Block, 75A							
Contactors, 45A/80A, 80A/105A							
Circuit Breaker, 100A							
Fuse Block, 100A,600V							
Disconnect Switch, 80A							
Current Transducer, 75A							
Service Switch, 80A							

Seismic Test Parameters:

Qualification Method	Sds	z/h	Ip	Aflx-H	Arig-H	Aflx-V	Arig-V
ICC-ES AC156	2.00	1.0	1.5	3.2	2.4	1.33	0.53

Pre/Post Shake Functionality Test Results:

Pre:	Passed
Post:	Passed: All units were filled with contents and maintained structural integrity and functionality

UUT Mounting Description:

UUT-01A was wall-mounted to the fixture using qty (4) 1/4" Grade 8 bolts in the manufacturer-provided holes. The wall fixture was rigidly mounted to the base plates using qty (6) 1" Grade 8 bolts. The base plate was attached to the shake table using qty (9) high-strength rods with a minimum diameter of 1".

UUT-01B

Manufacturer: ABB

Model Series: ACH550-VCR-059-2

Cabinet Construction Summary: 16 GA Carbon Steel

Wall Configuration Summary: 16 GA Carbon Steel

Component Summary:

Item	Dimensions				Lowest Nat. Freq.		
	Depth (in)	Width (in)	Height (in)	Weight (lb)	F-B (Hz)	S-S (Hz)	V (Hz)
Cabinet (Weight Listed is for Package)	10.9	8.4	47.7	70.0	N/A	N/A	N/A
Fuse, 100A,600V							
Terminal Block, 75A							
Contactors, 45A/80A, 80A/105A							
Circuit Breaker, 100A							
Fuse Block, 100A,600V							
Disconnect Switch, 80A							
Current Transducer, 75A							
Service Switch, 80A							

Seismic Test Parameters:

Qualification Method	Sds	z/h	Ip	Aflx-H	Arig-H	Aflx-V	Arig-V
ICC-ES AC156	2.00	1.0	1.5	3.2	2.4	1.33	0.53

Pre/Post Shake Functionality Test Results:

Pre:	Passed
Post:	Passed: All units were filled with contents and maintained structural integrity and functionality

UUT Mounting Description:

UUT-01B was wall-mounted to the fixture using qty (4) 1/4" Grade 8 bolts in the manufacturer-provided holes. The wall fixture was mounted on qty (6) VMC-Manufactured MSSH-1E spring isolators using each mount's 3/4" diameter adjusting bolt. Each isolator was attached to the base plate using qty (4) 3/4" Grade 8 bolts. The base plate was attached to the shake table using qty (9) high-strength rods with a minimum diameter of 1".

UUT-02A

Manufacturer: ABB

Model Series: ACH550-BCR-246A-4

Cabinet Construction Summary: 16 GA Carbon Steel

Wall Configuration Summary: 16 GA Carbon Steel

Component Summary:

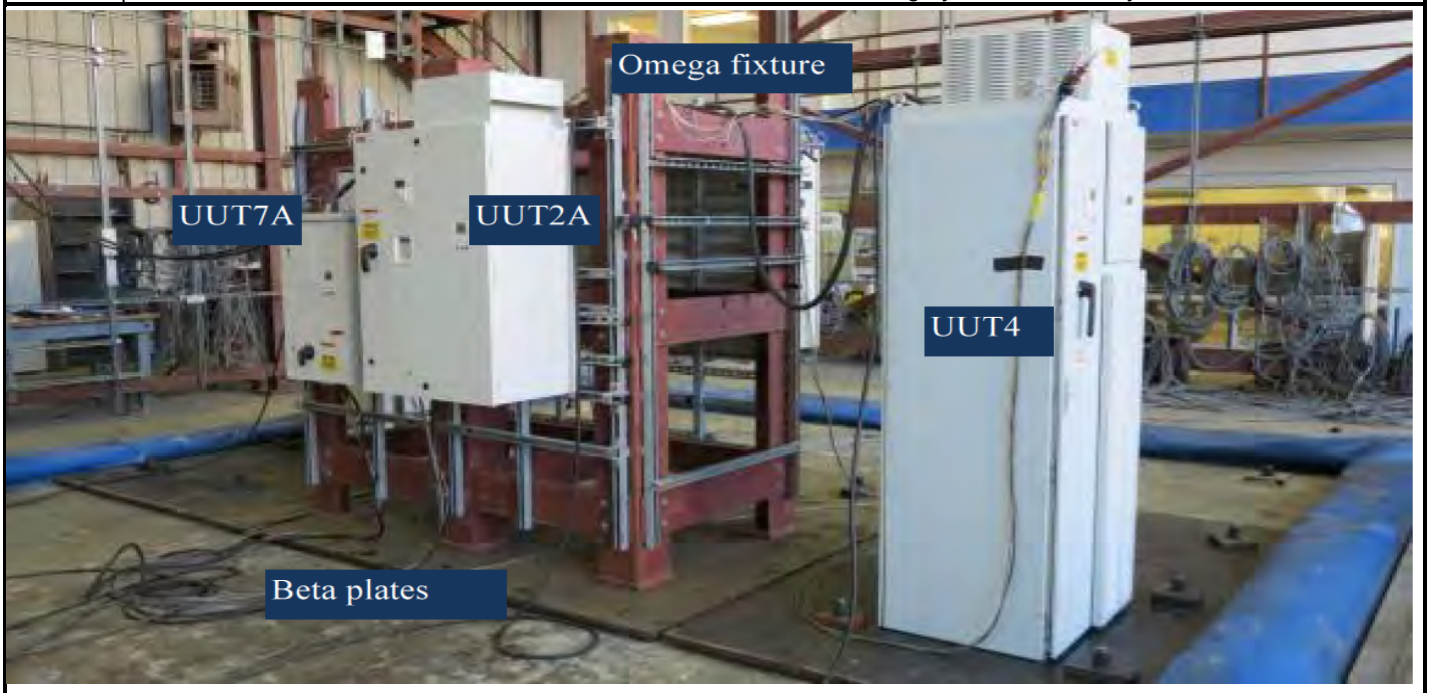
Item	Dimensions				Lowest Nat. Freq.		
	Depth (in)	Width (in)	Height (in)	Weight (lb)	F-B (Hz)	S-S (Hz)	V (Hz)
Cabinet (Weight Listed is for Package)	19.0	28.1	54.3	359.0	N/A	N/A	N/A
Fuse, 315A							
Fan, 38-40 CFM							
Contactors, 156A/250A, 248A/350A							
Circuit Breaker, 400A							
Fuse Block, 400A,1000V							
Disconnect Switch, 400A							
Filter							
Current Transducer, 500:5							
Service Switch, 400A							

Seismic Test Parameters:

Qualification Method	Sds	z/h	Ip	Aflx-H	Arig-H	Aflx-V	Arig-V
ICC-ES AC156	2.00	1.0	1.5	3.2	2.4	1.33	0.53

Pre/Post Shake Functionality Test Results:

Pre:	Passed
Post:	Passed: All units were filled with contents and maintained structural integrity and functionality



UUT Mounting Description:

UUT-02A was wall-mounted to the fixture using qty (4) 3/8" Grade 8 bolts in the manufacturer-provided holes. The wall fixture was rigidly mounted to the base plates using qty (6) 1" Grade 8 bolts. The base plate was attached to the shake table using qty (9) high-strength rods with a minimum diameter of 1".

UUT-02B							
Manufacturer:	ABB						
Model Series:	ACH550-BCR-246A-4						
Cabinet Construction Summary:	16 GA Carbon Steel						
Wall Configuration Summary:	16 GA Carbon Steel						
Component Summary:							

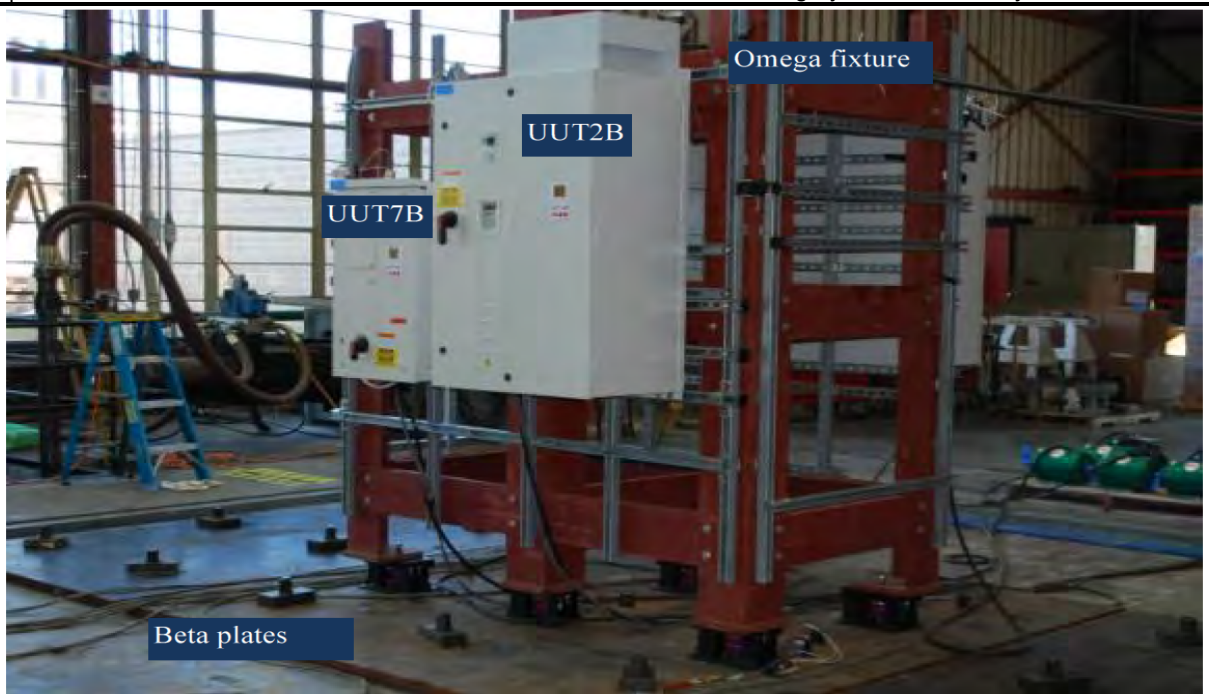
Item	Dimensions				Lowest Nat. Freq.		
	Depth (in)	Width (in)	Height (in)	Weight (lb)	F-B (Hz)	S-S (Hz)	V (Hz)
Cabinet (Weight Listed is for Package)	19.0	28.1	54.3	359.0	N/A	N/A	N/A
Fuse, 315A							
Fan, 38-40 CFM							
Contactors, 156A/250A, 248A/350A							
Circuit Breaker, 400A							
Fuse Block, 400A,1000V							
Disconnect Switch, 400A							
Filter							
Current Transducer, 500:5							
Service Switch, 400A							

Seismic Test Parameters:

Qualification Method	Sds	z/h	Ip	Aflx-H	Arig-H	Aflx-V	Arig-V
ICC-ES AC156	2.00	1.0	1.5	3.2	2.4	1.33	0.53

Pre/Post Shake Functionality Test Results:

Pre:	Passed
Post:	Passed: All units were filled with contents and maintained structural integrity and functionality



UUT Mounting Description:

UUT-02B was wall-mounted to the fixture using qty (4) 3/8" Grade 8 bolts in the manufacturer-provided holes. The wall fixture was mounted on qty (6) VMC-Manufactured MSSH-1E spring isolators using each mount's 3/4" diameter adjusting bolt. Each isolator was attached to the base plate using qty (4) 3/4" Grade 8 bolts. The base plate was attached to the shake table using qty (9) high-strength rods with a minimum diameter of 1".

UUT-03	
Manufacturer:	ABB
Model Series:	ACH550-BCR-316A-4
Cabinet Construction Summary:	16 GA Carbon Steel
Wall Configuration Summary:	16 GA Carbon Steel

Component Summary:

Item	Dimensions				Lowest Nat. Freq.		
	Depth (in)	Width (in)	Height (in)	Weight (lb)	F-B (Hz)	S-S (Hz)	V (Hz)
Cabinet (Weight Listed is for Package)	25.9	31.7	83.7	838.0	8.9	8.3	N/A
Fuse, 400A							
Contactor, 400A/460A							
Circuit Breaker, 600A							
Current Transducer, 500:5							
Service Switch, 800A							

Seismic Test Parameters:

Qualification Method	Sds	z/h	Ip	Aflx-H	Arig-H	Aflx-V	Arig-V
ICC-ES AC156	2.00	1.0	1.5	3.2	2.4	1.33	0.53

Pre/Post Shake Functionality Test Results:

Pre:	Passed
Post:	Passed: All units were filled with contents and maintained structural integrity and functionality

UUT Mounting Description:

UUT-3 was floor-mounted to the base plate using qty (4) 1/2" Grade 8 bolts in the manufacturer-provided holes. The base plate was attached to the shake table using qty (9) high-strength rods with a minimum diameter of 1".

UUT-04							
Manufacturer:	ABB						
Model Series:	ACH550-PCR-645A-4						
Cabinet Construction Summary:	16 GA Carbon Steel						
Wall Configuration Summary:	16 GA Carbon Steel						

Component Summary:

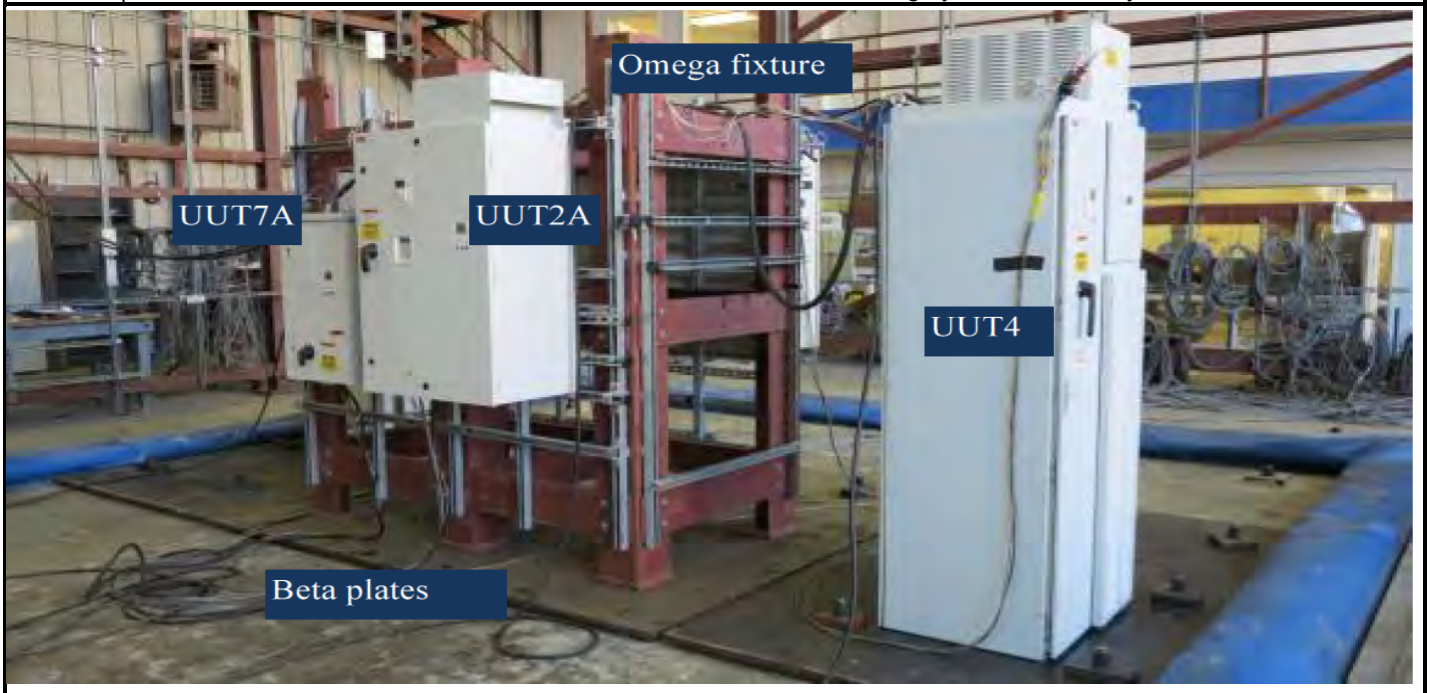
Item	Dimensions				Lowest Nat. Freq.		
	Depth (in)	Width (in)	Height (in)	Weight (lb)	F-B (Hz)	S-S (Hz)	V (Hz)
Cabinet (Weight Listed is for Package)	25.9	31.7	93.6	1045.0	6.6	7.2	N/A
Fuse, 800A							
Fan, 718 CFM							
Circuit Breaker, 800A							
Transformer, 500VA,380-500V/115V							
Disconnect Switch, 800A							
Filter							
Current Transducer, 500:5							

Seismic Test Parameters:

Qualification Method	Sds	z/h	Ip	Aflx-H	Arig-H	Aflx-V	Arig-V
ICC-ES AC156	2.00	1.0	1.5	3.2	2.4	1.33	0.53

Pre/Post Shake Functionality Test Results:

Pre:	Passed
Post:	Passed: All units were filled with contents and maintained structural integrity and functionality



UUT Mounting Description:

UUT-4 was floor-mounted to the base plate using qty (4) 1/2" Grade 8 bolts in the manufacturer-provided holes. The base plate was attached to the shake table using qty (9) high-strength rods with a minimum diameter of 1".

UUT-05A

Manufacturer: ABB

Model Series: ACH550-PCR-097A-4

Cabinet Construction Summary: 16 GA Carbon Steel

Wall Configuration Summary: 16 GA Carbon Steel

Component Summary:

Item	Dimensions				Lowest Nat. Freq.		
	Depth (in)	Width (in)	Height (in)	Weight (lb)	F-B (Hz)	S-S (Hz)	V (Hz)
Cabinet (Weight Listed is for Package)	19.0	28.1	54.3	267.0	N/A	N/A	N/A
Terminal Block, 115A							
Fan, 38-40 CFM							
Circuit Breaker, 150A							
Filter							
Current Transducer, 200:5							
Reactor, 3 pole, 175A							

Seismic Test Parameters:

Qualification Method	Sds	z/h	Ip	Aflx-H	Arig-H	Aflx-V	Arig-V
ICC-ES AC156	2.00	1.0	1.5	3.2	2.4	1.33	0.53

Pre/Post Shake Functionality Test Results:

Pre:	Passed
Post:	Passed: All units were filled with contents and maintained structural integrity and functionality

UUT Mounting Description:

UUT-05A was wall-mounted to the fixture using qty (4) 1/4" Grade 8 bolts in the manufacturer-provided holes. The wall fixture was rigidly mounted to the base plates using qty (6) 1" Grade 8 bolts. The base plate was attached to the shake table using qty (9) high-strength rods with a minimum diameter of 1".

UUT-05B

Manufacturer: ABB

Model Series: ACH550-PCR-097A-4

Cabinet Construction Summary: 16 GA Carbon Steel

Wall Configuration Summary: 16 GA Carbon Steel

Component Summary:

Item	Dimensions				Lowest Nat. Freq.		
	Depth (in)	Width (in)	Height (in)	Weight (lb)	F-B (Hz)	S-S (Hz)	V (Hz)
Cabinet (Weight Listed is for Package)	19.0	28.1	54.3	267.0	N/A	N/A	N/A
Terminal Block, 115A							
Fan, 38-40 CFM							
Circuit Breaker, 150A							
Filter							
Current Transducer, 200:5							
Reactor, 3 pole, 175A							

Seismic Test Parameters:

Qualification Method	Sds	z/h	Ip	Aflx-H	Arig-H	Aflx-V	Arig-V
ICC-ES AC156	2.00	1.0	1.5	3.2	2.4	1.33	0.53

Pre/Post Shake Functionality Test Results:

Pre:	Passed
Post:	Passed: All units were filled with contents and maintained structural integrity and functionality

UUT Mounting Description:

UUT-05B was wall-mounted to the fixture using qty (4) 1/4" Grade 8 bolts in the manufacturer-provided holes. The wall fixture was mounted on qty (6) VMC-Manufactured MSSH-1E spring isolators using each mount's 3/4" diameter adjusting bolt. Each isolator was attached to the base plate using qty (4) 3/4" Grade 8 bolts. The base plate was attached to the shake table using qty (9) high-strength rods with a minimum diameter of 1".

UUT-06A

Manufacturer: ABB

Model Series: ACH550-BCR-045A-A

Cabinet Construction Summary: 16 GA Carbon Steel

Wall Configuration Summary: 16 GA Carbon Steel

Component Summary:

Item	Dimensions				Lowest Nat. Freq.		
	Depth (in)	Width (in)	Height (in)	Weight (lb)	F-B (Hz)	S-S (Hz)	V (Hz)
Cabinet (Weight Listed is for Package)	15.3	20.5	37.4	120.0	N/A	N/A	N/A
Fuse, 60A,600V							
Terminal Block, 85A							
Contactor, 34A/50A; 42A/60A							
Circuit Breaker, 60A							
Fuse Block, 31-60A, 600V							
Disconnect Switch, 80A							
Current Transducer, 75A							
Service Switch, 80A							
Reactor, 0.33mH, 59A							

Seismic Test Parameters:

Qualification Method	Sds	z/h	Ip	Aflx-H	Arig-H	Aflx-V	Arig-V
ICC-ES AC156	2.00	1.0	1.5	3.2	2.4	1.33	0.53

Pre/Post Shake Functionality Test Results:

Pre:	Passed
Post:	Passed: All units were filled with contents and maintained structural integrity and functionality

UUT Mounting Description:

UUT-06A was wall-mounted to the fixture using qty (4) 3/8" Grade 8 bolts in the manufacturer-provided holes. The wall fixture was rigidly mounted to the base plates using qty (6) 1" Grade 8 bolts. The base plate was attached to the shake table using qty (9) high-strength rods with a minimum diameter of 1".

UUT-06B							
Manufacturer:	ABB						
Model Series:	ACH550-BCR-045A-A						
Cabinet Construction Summary:	16 GA Carbon Steel						
Wall Configuration Summary:	16 GA Carbon Steel						

Component Summary:

Item	Dimensions				Lowest Nat. Freq.		
	Depth (in)	Width (in)	Height (in)	Weight (lb)	F-B (Hz)	S-S (Hz)	V (Hz)
Cabinet (Weight Listed is for Package)	15.3	20.5	37.4	120.0	N/A	N/A	N/A
Fuse, 60A,600V							
Terminal Block, 85A							
Contactor, 34A/50A; 42A/60A							
Circuit Breaker, 60A							
Fuse Block, 31-60A, 600V							
Disconnect Switch, 80A							
Current Transducer, 75A							
Service Switch, 80A							
Reactor, 0.33mH, 59A							

Seismic Test Parameters:

Qualification Method	Sds	z/h	Ip	Aflx-H	Arig-H	Aflx-V	Arig-V
ICC-ES AC156	2.00	1.0	1.5	3.2	2.4	1.33	0.53

Pre/Post Shake Functionality Test Results:

Pre:	Passed
Post:	Passed: All units were filled with contents and maintained structural integrity and functionality

UUT Mounting Description:

UUT-06B was wall-mounted to the fixture using qty (4) 3/8" Grade 8 bolts in the manufacturer-provided holes. The wall fixture was mounted on qty (6) VMC-Manufactured MSSH-1E spring isolators using each mount's 3/4" diameter adjusting bolt. Each isolator was attached to the base plate using qty (4) 3/4" Grade 8 bolts. The base plate was attached to the shake table using qty (9) high-strength rods with a minimum diameter of 1".

UUT-07A

Manufacturer: ABB

Model Series: ACH550-PDR-04A6-2

Cabinet Construction Summary: 16 GA Carbon Steel

Wall Configuration Summary: 16 GA Carbon Steel

Component Summary:

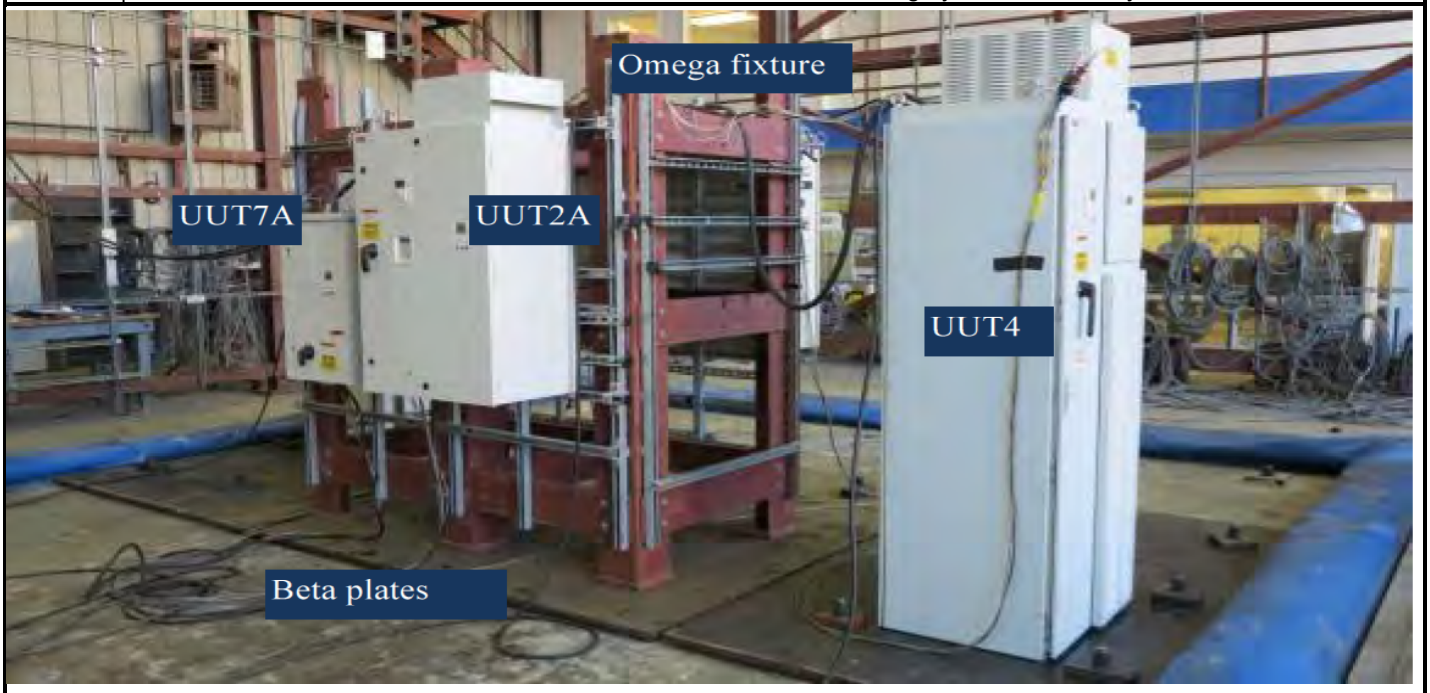
Item	Dimensions				Lowest Nat. Freq.		
	Depth (in)	Width (in)	Height (in)	Weight (lb)	F-B (Hz)	S-S (Hz)	V (Hz)
Cabinet (Weight Listed is for Package)	13.5	17.8	34.0	128.0	N/A	N/A	N/A
Fuse, 15A,600V							
Fan, 38-40 CFM							
Fuse Block, 30A, 600V							
Transformer, 3A,600V							
Disconnect Switch, 40A							
Current Transducer, 25A							
Service Switch, 40A							
Reactor, 290/220 UH, 125A; 1.2mH, 12A							

Seismic Test Parameters:

Qualification Method	Sds	z/h	Ip	Aflx-H	Arig-H	Aflx-V	Arig-V
ICC-ES AC156	2.00	1.0	1.5	3.2	2.4	1.33	0.53

Pre/Post Shake Functionality Test Results:

Pre:	Passed
Post:	Passed: All units were filled with contents and maintained structural integrity and functionality



UUT Mounting Description:

UUT-07A was wall-mounted to the fixture using qty (4) 3/8" Grade 8 bolts in the manufacturer-provided holes. The wall fixture was rigidly mounted to the base plates using qty (6) 1" Grade 8 bolts. The base plate was attached to the shake table using qty (9) high-strength rods with a minimum diameter of 1".

UUT-07B							
Manufacturer:	ABB						
Model Series:	ACH550-PDR-04A6-2						
Cabinet Construction Summary:	16 GA Carbon Steel						
Wall Configuration Summary:	16 GA Carbon Steel						

Component Summary:

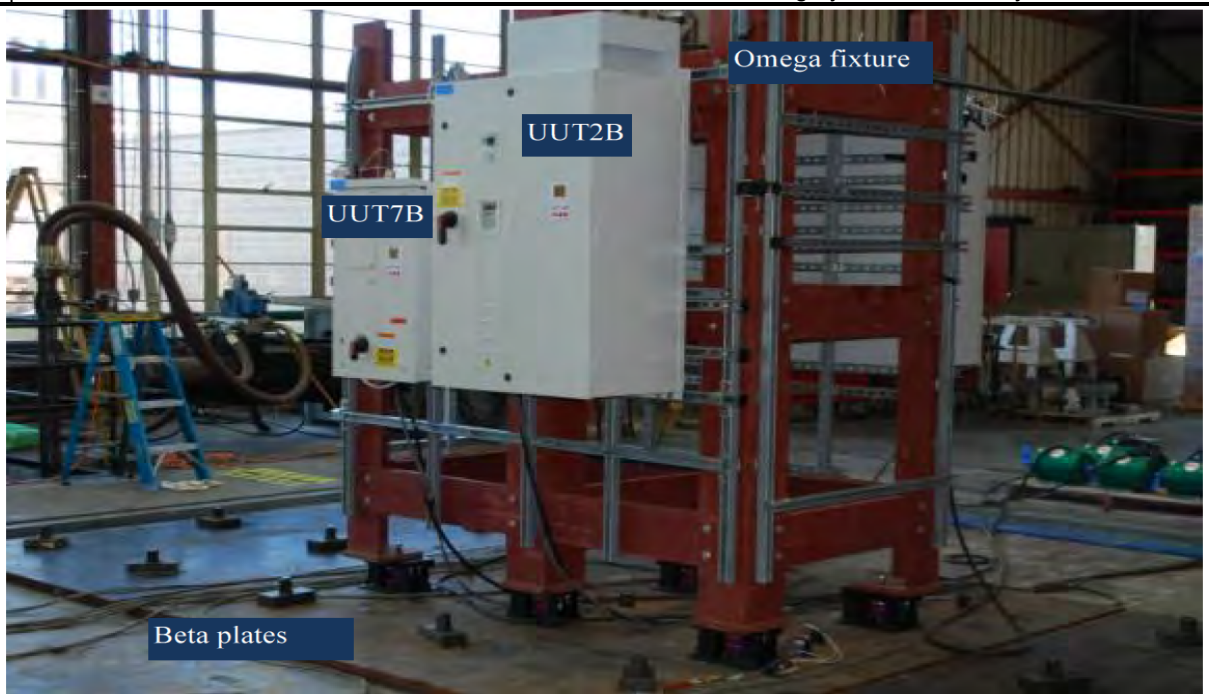
Item	Dimensions				Lowest Nat. Freq.		
	Depth (in)	Width (in)	Height (in)	Weight (lb)	F-B (Hz)	S-S (Hz)	V (Hz)
Cabinet (Weight Listed is for Package)	13.5	17.8	34.0	128.0	N/A	N/A	N/A
Fuse, 15A,600V							
Fan, 38-40 CFM							
Fuse Block, 30A, 600V							
Transformer, 3A,600V							
Disconnect Switch, 40A							
Current Transducer, 25A							
Service Switch, 40A							
Reactor, 290/220 UH, 125A; 1.2mH, 12A							

Seismic Test Parameters:

Qualification Method	Sds	z/h	Ip	Aflx-H	Arig-H	Aflx-V	Arig-V
ICC-ES AC156	2.00	1.0	1.5	3.2	2.4	1.33	0.53

Pre/Post Shake Functionality Test Results:

Pre:	Passed
Post:	Passed: All units were filled with contents and maintained structural integrity and functionality



UUT Mounting Description:

UUT-07B was wall-mounted to the fixture using qty (4) 3/8" Grade 8 bolts in the manufacturer-provided holes. The wall fixture was mounted on qty (6) VMC-Manufactured MSSH-1E spring isolators using each mount's 3/4" diameter adjusting bolt. Each isolator was attached to the base plate using qty (4) 3/4" Grade 8 bolts. The base plate was attached to the shake table using qty (9) high-strength rods with a minimum diameter of 1".