APPLICATION FOR OSHPD SPECIAL SEISMIC CERTIFICATION PREAPPROVAL (OSP)

OFFICE USE ONLY	
APPLICATION #:	OSP – 0586 – 10

OSHPD Special Seismic Certification Preapproval (OSP)

Type: ☒ New ☐ Renewal

Manufacturer Information

Manufacturer: Elevator Controls Corporation

Manufacturer's Technical Representative: Francisco Ortiz, Executive Vice President

Mailing Address: 6150 Warehouse Way, Sacramento, CA, 95826

Telephone: 916-428-1708 ext. 116 Email: francisco.ortiz@elevatorcontrols.com

Product Information

Product Name: Pixel AC and Pixel Hydro

Product Type: Computerized Elevator Control Panels

Product Model Number: See attached
(List all unique product identification numbers and/or part numbers)

General Description: Elevator controllers consisting of PCB controller boards, transformers, fuses, power supplies, Relay logic interface, motor soft starters, and variable frequency drive units. Seismic enhancements made to the test units and modifications to address anomalies observed during the tests shall be incorporated into the production units.

Mounting Description: Units are rigid base or rigid wall mounted

Applicant Information

Applicant Company Name: The VMC Group

Contact Person: John Giuliano

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, 2016.

Signature of Applicant: Date: 10/11/18

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: Kenneth Tarlow California License Number: SE-2851

Mailing Address: 113 Main Street, Bloomingdale, NJ 07403

Telephone: (973) 838-1780 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: DCL Labs

Contact Name: Josh Sailer, Laboratory Manager

Mailing Address: 1315 Greg Street, Suite 109, Sparks, NV 89431

Telephone: (775) 358-5085 Email: josh@shaketest.com

Seismic Parameters

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

Design Basis of Equipment or Components (F_p/W_p) = 1.44 for z/h=1.0 , 1.13 for z/h=0.0

S_{DS} (Design spectral response acceleration at short period, g) = 2.00 for z/h=1.0, 2.50 for z/h=0.0

a_p(In-structure equipment or component amplification factor) = 1.0

R_p(Equipment or component response modification factor) = 2.5

Ω_0 (System overstrength factor) = 2.0

I_p(Importance factor) = 1.5

z/h (Height factor ratio) = 1.0 and 0.0

Equipment or Component Natural Frequencies (Hz) = See attachment

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

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, 2015: ☐ 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, 2022

Signature: Date: March 19, 2019

Print Name: Ali Sumer Title: DSE

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

Condition of Approval (if applicable):

Table 1 - Certified Components, Pixel Hydraulic

Model Number	Manufacturer	Max. Dimensions (in)			Max. Weight (lb)	Mounting	Unit
		Depth	Width	Height			
Pixel-Hydro-S with PCEC-051-600V-120V	Elevator Controls Corporation	8.0	36.0	30.0	115	Wall mounted	Extrapolated
Pixel-Hydro-S with PCEC-064-600V-120V	Elevator Controls Corporation	8.0	36.0	30.0	115	Wall mounted	Extrapolated
Pixel-Hydro-S with PCEC-074-600V-120V	Elevator Controls Corporation	8.0	36.0	30.0	125	Wall mounted	Extrapolated
Pixel-Hydro-S with PCEC-104-600V-120V	Elevator Controls Corporation	8.0	36.0	30.0	125	Wall mounted	Extrapolated
Pixel-Hydro-S with PCEC-147-600V-120V	Elevator Controls Corporation	8.0	36.0	30.0	144	Wall mounted	UUT 1
Pixel-Hydro-L with/ PCEC-051-600V-120V	Elevator Controls Corporation	14.5	36.0	48.0	175	Wall mounted	Interpolated
Pixel-Hydro-L with PCEC-064-600V-120V	Elevator Controls Corporation	14.5	36.0	48.0	175	Wall mounted	Interpolated
Pixel-Hydro-L with PCEC-074-600V-120V	Elevator Controls Corporation	14.5	36.0	48.0	185	Wall mounted	Interpolated
Pixel-Hydro-L with PCEC-104-600V-120V	Elevator Controls Corporation	14.5	36.0	48.0	185	Wall mounted	Interpolated
Pixel-Hydro-L with PCEC-147-600V-120V	Elevator Controls Corporation	14.5	36.0	48.0	185	Wall mounted	Interpolated
Pixel-Hydro-L with PCEC-234-600V-120V	Elevator Controls Corporation	14.5	36.0	48.0	265	Wall mounted	UUT 2

Table 2 - Certified Subcomponents, Pixel Hydraulic

Subcomponent [MFR]	Model Number	Description	Material	Weight (lb)	Unit
Enclosure [Group Manufacturing Services]	15-001-002	8" x 36" x 30" (DxWxH), NEMA 1	Painted carbon steel	70	UUT 1
	15-001-003	14" x 36" x 48" (DxWxH), NEMA 1	Painted carbon steel	129	UUT 2
PCB [Elevator Controls Corporation]	P-MPv04	Pixel Main Microprocessor Board	Fiberglass	0.3	UUT 1 & 2
	P-MPIOv05	Pixel Safety Processor I/O Board	Fiberglass	0.3	UUT 1 & 2
	P-PDB-Hv01	Pixel Power Distribution for Hydro	Fiberglass	0.6	UUT 1 & 2
Terminal Block [Elevator Controls Corporation]	P-TB-Mv03	Board for Machine Room Interconnections	Fiberglass	0.1	UUT 1 & 2
	P-TB-Hv04	Board for Hoistway Interconnections	Fiberglass	0.1	UUT 1 & 2
	P-TB-Cv04	Board for Cartop Interconnections	Fiberglass	0.1	UUT 1 & 2
Transformer [Pacific Transformer]	4-54-61000	1150VA 50/60 HZ MULTICORE 208-480V Primary - 120V, 240V & 24V Secondary	Iron	24	UUT 1 & 2
Power Supply [Weidmuller]	1469480000	Output: 24VDC 120W, Input: 115-230VAC	Plastic	0.7	UUT 1 & 2
Rescuvator (R&R)	RB2-240/60	240vac	Iron	5.8	UUT 1 & 2
Starter [Sprecher+Schuh]	PCEC-051-600V-120V	200V@15HP, 240V@15HP, 480V@30HP, 575V@40HP & O/L 17-51A (7.01"W x 5.67"H x 4.56"D)	Plastic	4	Extrapolated
	PCEC-064-600V-120V	200V@20HP, 240V@20HP, 480V@40HP, 575V@60HP & O/L 21.3-64A (7.01"W x 5.67"H x 4.56"D)	Plastic	4	Extrapolated
	PCEC-074-600V-120V	200V@20HP, 240V@25HP, 480V@50HP, 575V@60HP & O/L 24.7-74A (9.45"W x 8.86"H x 5.82" D)	Plastic	14	Extrapolated
	PCEC-104-600V-120V	200V@30HP, 240V@40HP, 480V@75HP, 575V@100HP & O/L 34.7-104A (9.45"W x 8.86"H x 5.82" D)	Plastic	14	Extrapolated
	PCEC-147-600V-120V	200V@40HP, 240V@50HP, 480V@100HP, 575V@150HP & O/L 49-147A (9.45"W x 8.86"H x 5.82" D)	Plastic	14	UUT 1
	PCEC-234-600V-120V	200V@75HP, 240V@75HP, 480V@150HP, 575V@200HP & O/L 59-234A (14.25"W x 20.28"H x 8.52" D)	Plastic	51	UUT 2
Fuses [Bussman]	FNQ-8	FNQ 8A 500V Time Delay Fuse	Ceramic-Fiber	<1	UUT 1 & 2
Contactor [Sprecher+Schuh]	CA7-12E-01-24E	3 Pole, 1 NC Auxiliary, 24VDC	Plastic	0.4	UUT 1 & 2
Relay [Idec]	RU4S-D-24	KHAU Relay	Plastic	<1	UUT 1 & 2
Panel Mount Terminals [Weidmuller]	1037800000	Panel Mount Terminals	Plastic	<1	UUT 1 & 2

Table 3 - Certified Components, Pixel Traction

Model Number	Manufacturer	Max. Dimensions (in)			Max. Weight (lb)	Mounting	Unit
		Depth	Width	Height			
Pixel AC-S with LU2A0033DAC-088	Elevator Controls Corporation	13	36	77	255	Base Mounted	Extrapolated
Pixel AC-S with LU4A0015DAC-088	Elevator Controls Corporation	13	36	77	255	Base Mounted	Extrapolated
Pixel AC-S with LU4A0018DAC-088	Elevator Controls Corporation	13	36	77	256	Base Mounted	Extrapolated
Pixel AC-S with LU2A0047DAC-088	Elevator Controls Corporation	13	36	77	258	Base Mounted	Extrapolated
Pixel AC-S with LU4A0024DAC-088	Elevator Controls Corporation	13	36	77	258	Base Mounted	Extrapolated
Pixel AC-S with LU4A0031DAC-088	Elevator Controls Corporation	13	36	77	258	Base Mounted	Extrapolated
Pixel AC-S with LU4A0039DAC-088	Elevator Controls Corporation	13	36	77	265	Base Mounted	Extrapolated
Pixel AC-S with LU2A0060DAC-088	Elevator Controls Corporation	13	36	77	266	Base Mounted	Extrapolated
Pixel AC-S withLU2A0075DAC-088	Elevator Controls Corporation	13	36	77	268	Base Mounted	Extrapolated
Pixel AC-S with LU2A0085DAC-088	Elevator Controls Corporation	13	36	77	293	Base Mounted	Extrapolated
Pixel AC-S with LU4A0045DAC-088	Elevator Controls Corporation	13	36	77	293	Base Mounted	Extrapolated
Pixel AC-S with LU2A0115DAC-088	Elevator Controls Corporation	13	36	77	302	Base Mounted	Extrapolated
Pixel AC-S with LU4A0060DAC-088	Elevator Controls Corporation	13	36	77	302	Base Mounted	Extrapolated
Pixel AC-S with LU4A0075DAC-088	Elevator Controls Corporation	13	36	77	326	Base Mounted	Extrapolated
Pixel AC-S with LU4A0091DAC-088	Elevator Controls Corporation	13	36	77	326	Base Mounted	Extrapolated
Pixel AC-S with LU2A0145DAC-088	Elevator Controls Corporation	13	36	77	328	Base Mounted	Extrapolated
Pixel AC-S with LU4A0112DAC-088	Elevator Controls Corporation	13	36	77	337	Base Mounted	Interpolated
Pixel AC-S with LU4A0150DAC-088	Elevator Controls Corporation	13	36	77	339	Base Mounted	Interpolated
Pixel AC-S with LU2A0180DAC-088	Elevator Controls Corporation	13	36	77	380	Base Mounted	UUT 3
Pixel AC-L with LU2A0033DAC-088	Elevator Controls Corporation	17	47	77	385	Base Mounted	Interpolated
Pixel AC-L with LU4A0015DAC-088	Elevator Controls Corporation	17	47	77	386	Base Mounted	Interpolated
Pixel AC-L with LU4A0018DAC-088	Elevator Controls Corporation	17	47	77	386	Base Mounted	Interpolated
Pixel AC-L with LU2A0047DAC-088	Elevator Controls Corporation	17	47	77	388	Base Mounted	Interpolated
Pixel AC-L with LU4A0024DAC-088	Elevator Controls Corporation	17	47	77	388	Base Mounted	Interpolated
Pixel AC-L with LU4A0031DAC-088	Elevator Controls Corporation	17	47	77	388	Base Mounted	Interpolated
Pixel AC-L with LU4A0039DAC-088	Elevator Controls Corporation	17	47	77	395	Base Mounted	Interpolated
Pixel AC-L with LU2A0060DAC-088	Elevator Controls Corporation	17	47	77	396	Base Mounted	Interpolated
Pixel AC-L with LU2A0075DAC-088	Elevator Controls Corporation	17	47	77	398	Base Mounted	Interpolated
Pixel AC-L with LU2A0085DAC-088	Elevator Controls Corporation	17	47	77	403	Base Mounted	Interpolated
Pixel AC-L with LU4A0045DAC-088	Elevator Controls Corporation	17	47	77	403	Base Mounted	Interpolated
Pixel AC-L with LU2A0115DAC-088	Elevator Controls Corporation	17	47	77	412	Base Mounted	Interpolated
Pixel AC-L with LU4A0060DAC-088	Elevator Controls Corporation	17	47	77	412	Base Mounted	Interpolated
Pixel AC-L with LU4A0075DAC-088	Elevator Controls Corporation	17	47	77	426	Base Mounted	Interpolated
Pixel AC-L with LU4A0091DAC-088	Elevator Controls Corporation	17	47	77	426	Base Mounted	Interpolated
Pixel AC-L with LU2A0145DAC-088	Elevator Controls Corporation	17	47	77	438	Base Mounted	Interpolated
Pixel AC-L with LU2A0180DAC-088	Elevator Controls Corporation	17	47	77	440	Base Mounted	Interpolated
Pixel AC-L with LU4A0112DAC-088	Elevator Controls Corporation	17	47	77	447	Base Mounted	Interpolated
Pixel AC-L with LU4A0150DAC-088	Elevator Controls Corporation	17	47	77	449	Base Mounted	Interpolated
Pixel AC-L with LU2A0215AAC-088	Elevator Controls Corporation	17	47	77	504	Base Mounted	Interpolated
Pixel AC-L with LU4A0180AAC-088	Elevator Controls Corporation	17	47	77	550	Base Mounted	UUT 4

Table 4 - Certified Subcomponents, Pixel Traction

Mounting Configuration: *Rigid base*

Subcomponent [MFR]	Model Number	Description	Material	Weight (lb)	Unit
Enclosure [Group Manufacturing Services (GMS)]	15-001-001	Base Mounted 13" x 36" x 62" (DxWxH) With components subplate	Painted carbon steel (NEMA 1)	214	UUT 3
	15-001-030	Base Mounted 17" x 47" x 62" (DxWxH) With components subplate	Painted carbon steel (NEMA 1)	304	UUT 4
PCB [Elevator Controls Corporation]	P-MPv04	Pixel Main Microprocessor Board	Fiberglass	0.3	UUT 3 & 4
	P-MPIOv05	Pixel Safety Processor I/O Board	Fiberglass	0.3	UUT 3 & 4
	P-PDB-Hv01	Pixel Power Distribution for Hydro	Fiberglass	0.6	UUT 3 & 4
Terminal Block [Elevator Controls Corporation]	P-TB-Mv03	Terminal Block Board for Machine Room Interconnections	Fiberglass	0.1	UUT 3 & 4
	P-TB-Hv04	Terminal Block Board for Hoistway Interconnections	Fiberglass	0.1	UUT 3 & 4
	P-TB-Cv04	Terminal Block Board for Cartop Interconnections	Fiberglass	0.1	UUT 3 & 4
Transformer [Pacific Transformer]	4-54-61000	1150VA 50/60 HZ MULTICORE 208-480V Primary - 120V, 240V & 24V Secondary	Iron	24	UUT 3 & 4
Power Supply [Weidmuller]	1469480000	Output: 24VDC 120W, Input: 115-230VAC	Plastic	0.7	UUT 3 & 4
Starter [Cutler-Hammer] (IEC Contactor 3-Pole, 120VAC COIL, AC-3 Rating)	XTCE040D0A	40A, Frame D	Plastic	1.0	Extrapolated
	XTCE050D0A	40A, Frame D	Plastic	1.0	Extrapolated
	XTCE065D0A	65A, Frame D	Plastic	1.0	Extrapolated
	XTCE080F00A	80A, Frame F	Plastic	2.3	Extrapolated
	XTCE095F00A	95A, Frame F	Plastic	2.3	Extrapolated
	XTCE115G00A	115A Frame G	Plastic	2.4	Extrapolated
	XTCE150G00A	150A Frame G	Plastic	2.4	Extrapolated
	XTCE170G00A	170A Frame G	Plastic	2.4	UUT 3
	XTCE185H22A	185A Frame H	Plastic	4.2	UUT 4
Fuses [Bussman]	FNQ-8	FNQ 8A 500V Time Delay Fuse	Ceramic-Plastic	< 0.1	UUT 4
	MDA-4	MDA 4A 250V Time Delay Fuse	Glass	< 0.1	UUT 3 & 4
	MDA-5	MDA 5A 250V Time Delay Fuse	Glass	< 0.1	UUT 3 & 4
	MDA-6	MDA 6A 250V Time Delay Fuse	Glass	< 0.1	UUT 3 & 4
Contactor [Sprecher+Schuh]	CA7-12E-01-24E	3 Pole Contactor, 1 NC Auxiliary Contact, 24VDC Coil Contactor	Plastic	0.4	UUT 3 & 4
Contactor [TYCO]	199ABX-14	PRD-11AH0-120 2 POLE 20A 120VAC Coil, Power Relay (With DC Blowout Magnet)	Plastic	0.3	UUT 3 & 4
Relay [Idec]	RU4S-D-24	KHAU Relay	Plastic	0.0	UUT 3 & 4
Panel Mount Terminals [Weidmuller]	1037800000	Panel Mount Terminals	Plastic	0.01	UUT 3 & 4
Power Terminal Block [Marathon]	1433126	600V 310A 3 Pole	Carbon steel	0.6	UUT 3 & 4
Diode Bridge [Mot]	MB3510	1000V 35A	Plastic	0.03	UUT 3 & 4
Braking Module [Magnatek]	05P00671-0105	Low Voltage Dynamic Braking Module 200V (80A)	Plastic	2.0	UUT 3
	05P00671-0103	High Voltage Dynamic Braking Module 400V (60A)	Plastic	2.0	UUT 4
Power Resisitor [Ohmite]	76439-10R	10 OHM /FIXED/TERM LUGS 2000W Edgewound	Ceramic	1.9	UUT 3 & 4
	08-012-001	Assorted /FIXED/TERM LUGS 225W Edgewound	Ceramic	0.3	UUT 3 & 4
	08-012-010	Assorted /FIXED/TERM LUGS 225W Edgewound	Ceramic	0.3	UUT 3 & 4

Table 4 (Continued) - Certified Subcomponents, Pixel Traction - Drives

Mounting Configuration: *Rigid base*

Subcomponent [MFR]	Model Number	Description	Voltage (V)	Material	Weight (lb)	Unit
Drive Units [Magnatek]	LU4A0015DAC-088	L1000A 400V@14.8A - 7.5HP (5.5"Wx10.2"Hx6.6"D)	400	Plastic	8.6	Extrapolated
	LU2A0033DAC-088	L1000A 200V@33.0A - 7.5HP (5.5"Wx10.2"Hx6.6"D)	200	Plastic	8.8	Extrapolated
	LU4A0018DAC-088	L1000A 400V@18A - 10HP (5.5"Wx10.2"Hx6.6"D)	400	Plastic	8.9	Extrapolated
	LU4A0024DAC-088	L1000A 400V@24A - 15HP (7.1"Wx11.8"Hx6.6"D)	400	Plastic	11.9	Extrapolated
	LU4A0031DAC-088	L1000A 400V@31A - 20HP (7.1"Wx11.8"Hx7.4"D)	400	Plastic	11.9	Extrapolated
	LU2A0047DAC-088	L1000A 200V@47.0A - 10HP (7.1"Wx11.8"Hx6.6"D)	200	Plastic	12.3	Extrapolated
	LU4A0039DAC-088	L1000A 400V@39A - 20+HP (8.7"Wx13.8"Hx7.8"D)	400	Plastic	18.3	Extrapolated
	LU2A0060DAC-088	L1000A 200V@60.0A - 15HP (8.7"Wx13.8"Hx7.8"D)	200	Plastic	19.2	Extrapolated
	LU2A0075DAC-088	L1000A 200V@75.0A - 20HP (8.7"Wx13.8"Hx7.8"D)	200	Plastic	21.4	Extrapolated
	LU2A0085DAC-088	L1000A 200V@85.0A - 25HP (9.8"Wx15.7"Hx10.2"D)	200	Plastic	46.3	Extrapolated
	LU4A0045DAC-088	L1000A 400V@45A - 25HP (9.8"Wx15.7"Hx10.2"D)	400	Plastic	46.3	Extrapolated
	LU2A0115DAC-088	L1000A 200V@115.0A - 30HP (10.8"Wx17.7'"Hx10.2"D)	200	Plastic	55.1	Extrapolated
	LU4A0060DAC-088	L1000A 400V@60A - 30HP (10.8"Wx17.7'"Hx10.2"D)	400	Plastic	55.1	Extrapolated
	LU4A0075DAC-088	L1000A 400V@75A - 40HP (12.8"Wx17.7'"Hx10.2"D)	400	Plastic	79.4	Extrapolated
	LU4A0091DAC-088	L1000A 400V@91A - 40HP (12.8"Wx17.7'"Hx10.2"D)	400	Plastic	79.4	Extrapolated
	LU2A0145DAC-088	L1000A 200V@145.0A - 40HP (12.8"Wx21.7'"Hx11.1"D)	200	Plastic	81.6	Extrapolated
	LU2A0180DAC-088	L1000A 200V@180.0A - 45HP (12.8"Wx21.7'"Hx11.1"D)	200	Plastic	83.8	UUT 3
	LU4A0112DAC-088	L1000A 400V@112A - 50HP (12.8"Wx21.7'"Hx11.1"D)	400	Plastic	90.4	Interpolated
	LU4A0150DAC-088	L1000A 400V@150A - 60HP (12.8"Wx21.7'"Hx11.1"D)	400	Plastic	92.6	Interpolated
	LU2A0215AAC-088	L1000A 200V@215.0A - 50HP (17.7"Wx27.8'"Hx13.0"D)	200	Plastic	167.6	Interpolated
	LU4A0180AAC-088	L1000A 400V@180A - 75HP (17.7"Wx27.8'"Hx13.0"D)	400	Plastic	174.2	UUT 4

Table 5 - Tested Units

Pixel Hydraulic							
Model Number	Manufacturer	Dimensions (in)			Weight (lb)	Mounting	Unit
		Depth	Width	Height			
Pixel-Hydro-S with PCEC-147-600V-120V	Elevator Controls Corporation	8.0	36.0	30.0	144	Wall mounted	UUT 1
Pixel-Hydro-L with PCEC-234-600V-120V	Elevator Controls Corporation	14.5	36.0	48.0	265	Wall mounted	UUT 2
Pixel Traction							
Model Number	Manufacturer	Dimensions (in)			Weight (lb)	Mounting	Unit
		Depth	Width	Height			
Pixel AC-S with LU2A0180DAC-088	Elevator Controls Corporation	13.0	36.0	77.0	380	Base Mounted	UUT 3
Pixel AC-L with LU4A0180AAC-088	Elevator Controls Corporation	17.0	47.0	77.0	550	Base Mounted	UUT 4

UUT1

UNIT UNDER TEST (UUT) Summary Sheet

DCL Dynamic Certification Laboratories

Manufacturer: Elevator Controls Corporation

Product Line: Pixel Elevator Controllers

Model Number: Pixel-Hydro-S with PCEC-147-600V-120V

Product Construction Summary: Painted carbon steel panel

Options / Component Summary: NEMA 1 Enclosure, PCB Controller, Motor Starter

Note: The UUT was operational before and after shaking and was full of operating content during the tests. The structural integrity of the component and attachment system and force-resisting systems was maintained.

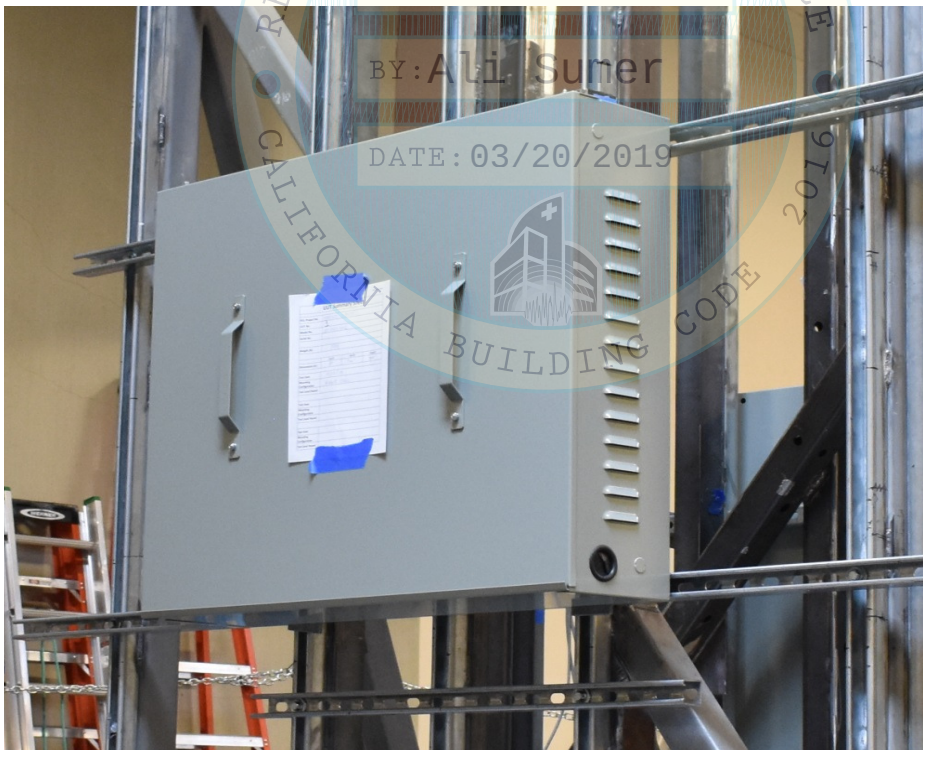
UUT Properties

Operating Weight (lb)	Dimensions (in)				Lowest Natural Frequency (Hz)		
		Length	Width	Height	Front-Back	Side-Side	Vertical
144	UUT1	8.0	36.0	48.0	N/A	N/A	N/A

Seismic Test Parameters

Building Code	Test Criteria	Sds (g)	z/h	Ip	Aflx-H (g)	Arig-H (g)	Aflx-V (g)	Arig-V (g)
CBC 2016	ICC-ES AC156	2.00	1.0	1.5	3.20	3.00	-	-
		2.50	0.0		-	-	1.67	0.67

Unit Mounting Description:



UUT 1 was rigid wall mounted to the DCL wall interface fixture with (4) 3/8'' diameter, grade 5, bolts in the manufacturer designated mounting locations

UUT2

UNIT UNDER TEST (UUT) Summary Sheet

((●)) DCL Dynamic Certification Laboratories

Manufacturer: Elevator Controls Corporation

Product Line: Pixel Elevator Controllers

Model Number: Pixel-Hydro-L with PCEC-234-600V-120V

Product Construction Summary: Painted carbon steel panel

Options / Component Summary: NEMA 1 Enclosure, PCB Controller, Motor Starter

Note: The UUT was operational before and after shaking and was full of operating content during the tests. The structural integrity of the component and attachment system and force-resisting systems was maintained.

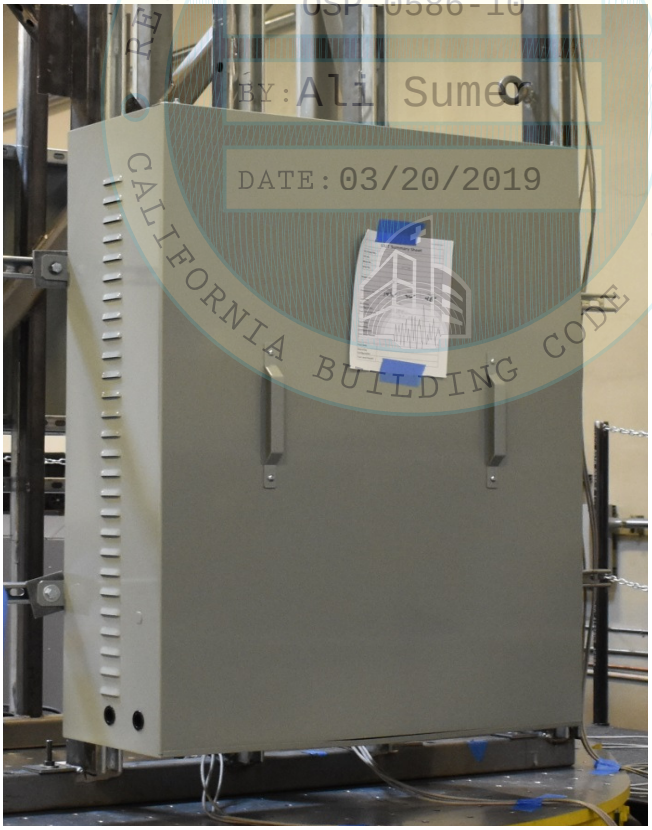
UUT Properties

Operating Weight (lb)	Dimensions (in)				Lowest Natural Frequency (Hz)		
		Length	Width	Height	Front-Back	Side-Side	Vertical
265	UUT 2	14.5	36.0	48.0	N/A	N/A	N/A

Seismic Test Parameters

Building Code	Test Criteria	Sds (g)	z/h	Ip	Aflx-H (g)	Arig-H (g)	Aflx-V (g)	Arig-V (g)
CBC 2016	ICC-ES AC156	2.00	1.0	1.5	3.20	3.00	-	-
		2.50	0.0		-	-	1.67	0.67

Unit Mounting Description:



UUT 2 was rigid wall mounted to the DCL wall interface fixture with (4) 3/8'' diameter, grade 5, bolts in the manufacturer designated mounting locations

UUT3

UNIT UNDER TEST (UUT) Summary Sheet

DCL Dynamic Certification Laboratories

Manufacturer: Elevator Controls Corporation

Product Line: Pixel Elevator Controllers

Model Number: Pixel AC-S with LU2A0180DAC-088

Product Construction Summary: Painted carbon steel panel

Options / Component Summary: NEMA 1 Panel, PCB Controller, Motor Drives

Note: The UUT was operational before and after shaking and was full of operating content during the tests. The structural integrity of the component and attachment system and force-resisting systems was maintained.

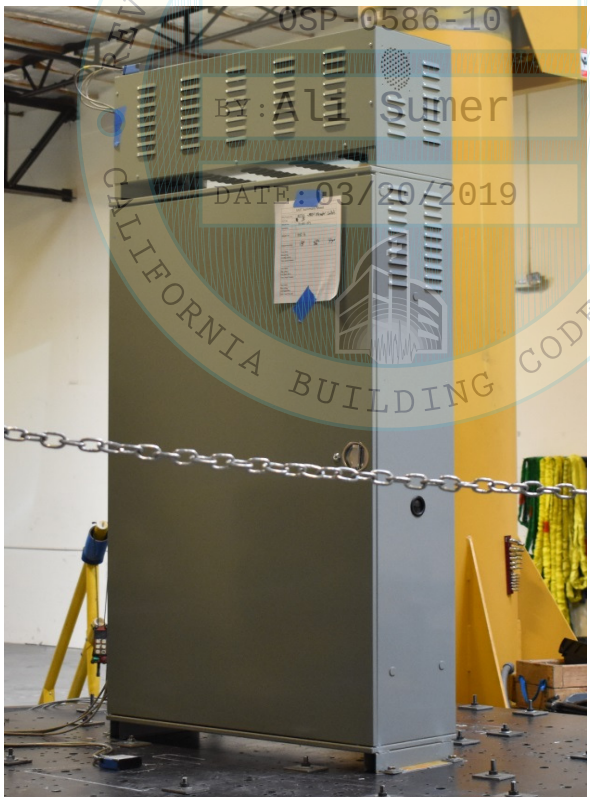
UUT Properties

Operating Weight (lb)	Dimensions (in)				Lowest Natural Frequency (Hz)		
		Length	Width	Height	Front-Back	Side-Side	Vertical
380	UUT 3	13.0	36.0	77.0	12.0	12.0	>33.3

Seismic Test Parameters

Building Code	Test Criteria	Sds (g)	z/h	Ip	Aflx-H (g)	Arig-H (g)	Aflx-V (g)	Arig-V (g)
CBC 2016	ICC-ES AC156	2.00	1.0	1.5	3.20	3.00	-	-
		2.50	0.0		-	-	1.67	0.67

Unit Mounting Description:



UUT 3 was rigid base mounted to the DCL interface plate with (4) 1/2'' diameter, grade 8, bolts and washers with a 3'' x 3'' x 3/16'' carbon steel plate washer. UUT 3 was retrofit with (2) 2.5'' welds added to the outside of the enclsoure near the feet on each short side and (3) 2.5'' welds were added to the long side.

UUT4

UNIT UNDER TEST (UUT) Summary Sheet

DCL Dynamic Certification Laboratories

Manufacturer: Elevator Controls Corporation

Product Line: Pixel Elevator Controllers

Model Number: Pixel AC-L with LU4A0180AAC-088

Product Construction Summary: Painted carbon steel panel

Options / Component Summary: NEMA 1 Panel, PCB Controller, Motor Drives

Note: The UUT was operational before and after shaking and was full of operating content during the tests. The structural integrity of the component and attachment system and force-resisting systems was maintained.

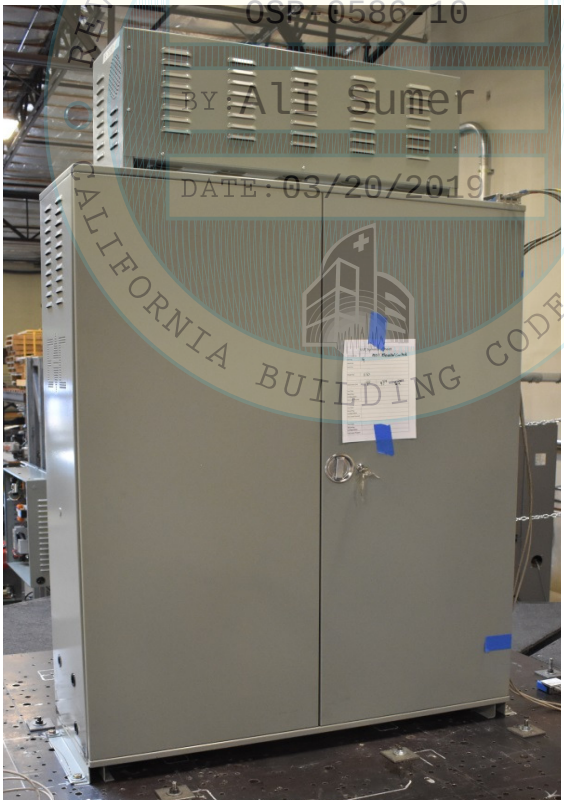
UUT Properties

Operating Weight (lb)	Dimensions (in)				Lowest Natural Frequency (Hz)		
		Length	Width	Height	Front-Back	Side-Side	Vertical
550	UUT 4	17.0	47.0	77.0	15.5	21.0	>33.3

Seismic Test Parameters

Building Code	Test Criteria	Sds (g)	z/h	Ip	Aflx-H (g)	Arig-H (g)	Aflx-V (g)	Arig-V (g)
CBC 2016	ICC-ES AC156	2.00	1.0	1.5	3.20	3.00	-	-
		2.50	0.0		-	-	1.67	0.67

Unit Mounting Description:



UUT 4 was rigid base mounted to the DCL interface plate with (4) 1/2'' diameter, grade 8, bolts and washers with a 3'' x 3'' x 3/16'' carbon steel plate washer. UUT 4 was retrofit with (2) 2.5'' welds added to the outside of the enclsoure near the feet on each short side and (3) 2.5'' welds were added to the long side.