APPLICATION FOR HCAI SPECIAL SEISMIC CERTIFICATION PREAPPROVAL (OSP)

OFFICE USE ONLY

APPLICATION #: OSP-0586

HCAI Special Seismic Certification Preapproval (OSP)

Type: ☐ New ☒ Renewal

Manufacturer Information

Manufacturer: Elevator Controls Corporation

Manufacturer's Technical Representative: Francisco Ortiz

Mailing Address: 6150 Warehouse Way, Sacramento, CA 95826

Telephone: (916) 428-1708 Email: francisco.ortiz@elevatorcontrols.com

Product Information

Product Name: Elevator Equipment

Product Type: Elevator Control Panels

Product Model Number: See attached

General Description: Elevator controllers consisting of PCB controller boards, transformers, fuses, power supplies, Relay logic interface, motor soft starters, and variable frequency drive units.

Mounting Description: Units are rigid base or rigid wall mounted.

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.

REVIEWED FOR CODE COMPLIANCE HCAi OSP-0586 CALIFORNIA BUILDING CODE, 2019 DATE: 04/04/2022

Applicant Information

Applicant Company Name: Dynamic Certification Laboratories, LLC

Contact Person: Kelly Laplace

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

Telephone: (775) 358-5085 Email: Kelly@Shaketest.com

Title: Business Manager

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

Company Name: THE VMC GROUP

Name: Kenneth Tarlow California License Number: S2851

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

Telephone: (832) 627-2214 Email: ken.tarlow@thevmcgroup.com

Certification Method

☐ GR-63-Core ☒ ICC-ES AC156 ☐ IEEE 344 ☐ IEEE 693 ☐ NEBS 3

☐ Other (Please Specify):

Testing Laboratory

Company Name: DYNAMIC CERTIFICATION LABORATORY (DCL)

Contact Person: Josh Sailer

Mailing Address: 1315 Greg St., Ste 109, Sparks NV 89431

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

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OSP-0586
BY : Mohammad Karim
DATE: 04/04/2022
CALIFORNIA BUILDING CODE, 2019

Seismic Parameters

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 (Amplification factor) = 1.0

R_p (Response modification factor) = 2.5

Ω_0 (System overstrength factor) = 2.0

I_p (Importance factor) = 1.5

z/h (Height ratio factor) = 1 and 0

Natural frequencies (Hz) = See Attachment

Overall dimensions and weight = See Attachment

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HCAi
OSP-0586
BY: Mohammad Karim
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CALIFORNIA BUILDING CODE, 2019

HCAI Approval (For Office Use Only) - Approval Expires on 04/04/2028

Date: 4/4/2022

Name: Mohammad Karim Title: Supervisor, Health Facilities

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

Condition of Approval (if applicable):

Special Seismic Certification
Table 1 - Certified Components - Pixel Hydraulic

DCL DYNAMIC CERTIFICATION LABORATORIES,LLC

DCL Project Number:	66090-2201
Manufacturer:	Elevator Controls Corporation
Product Line:	Pixel Elevator Controllers
Mounting Configuration:	Rigid Wall Mount
Test Levels:	Sds = 2.00g, z/h=1.0 : Sds = 2.50g, z/h=0.0

Model Number	Manufacturer	Max. Dimensions (in)			Max. Weight	Unit
		Depth	Width	Height		
Pixel-Hydro-S with PCEC-051-600V-120V	Elevator Controls Corporation	8.0	36.0	30.0	115	Extrapolated
Pixel-Hydro-S with PCEC-064-600V-120V	Elevator Controls Corporation	8.0	36.0	30.0	115	Extrapolated
Pixel-Hydro-S with PCEC-074-600V-120V	Elevator Controls Corporation	8.0	36.0	30.0	125	Extrapolated
Pixel-Hydro-S with PCEC-104-600V-120V	Elevator Controls Corporation	8.0	36.0	30.0	125	Extrapolated
Pixel-Hydro-S with PCEC-147-600V-120V	Elevator Controls Corporation	8.0	36.0	30.0	144	UUT-01
Pixel-Hydro-L with PCEC-051-600V-120V	Elevator Controls Corporation	14.5	36.0	48.0	175	Interpolated
Pixel-Hydro-L with PCEC-064-600V-120V	Elevator Controls Corporation	14.5	36.0	48.0	175	Interpolated
Pixel-Hydro-L with PCEC-074-600V-120V	Elevator Controls Corporation	14.5	36.0	48.0	185	Interpolated
Pixel-Hydro-L with PCEC-104-600V-120V	Elevator Controls Corporation	14.5	36.0	48.0	185	Interpolated
Pixel-Hydro-L with PCEC-147-600V-120V	Elevator Controls Corporation	14.5	36.0	48.0	185	Interpolated
Pixel-Hydro-L with PCEC-234-600V-120V	Elevator Controls Corporation	14.5	36.0	48.0	265	UUT-02

REVIEWED FOR CODE COMPLIANCE
CALIFORNIA BUILDING CODE, 2019
BY: Mohammad Rahim
DATE: 04/04/2022

Special Seismic Certification
Table 2 - Certified Components - Pixel Traction

DCL DYNAMIC CERTIFICATION LABORATORIES,LLC

DCL Project Number: 66090-2201

Manufacturer: Elevator Controls Corporation

Product Line: Pixel Elevator Controllers

Mounting Configuration: Rigid Base Mount

Test Levels: Sds = 2.00g, z/h=1.0 : Sds = 2.50g, z/h=0.0

Model Number	Manufacturer	Max. Dimensions (in)			Max. Weight	Unit
		Depth	Width	Height		
Pixel AC-S with LU2A0033DAC-088	Elevator Controls Corporation	13	36	77	255	Extrapolated
Pixel AC-S with LU4A0015DAC-088	Elevator Controls Corporation	13	36	77	255	Extrapolated
Pixel AC-S with LU4A0018DAC-088	Elevator Controls Corporation	13	36	77	256	Extrapolated
Pixel AC-S with LU2A0047DAC-088	Elevator Controls Corporation	13	36	77	258	Extrapolated
Pixel AC-S with LU4A0024DAC-088	Elevator Controls Corporation	13	36	77	258	Extrapolated
Pixel AC-S with LU4A0031DAC-088	Elevator Controls Corporation	13	36	77	258	Extrapolated
Pixel AC-S with LU4A0039DAC-088	Elevator Controls Corporation	13	36	77	265	Extrapolated
Pixel AC-S with LU2A0060DAC-088	Elevator Controls Corporation	13	36	77	266	Extrapolated
Pixel AC-S with LU2A0075DAC-088	Elevator Controls Corporation	13	36	77	268	Extrapolated
Pixel AC-S with LU2A0085DAC-088	Elevator Controls Corporation	13	36	77	293	Extrapolated
Pixel AC-S with LU4A0045DAC-088	Elevator Controls Corporation	13	36	77	293	Extrapolated
Pixel AC-S with LU2A0115DAC-088	Elevator Controls Corporation	13	36	77	302	Extrapolated
Pixel AC-S with LU4A0060DAC-088	Elevator Controls Corporation	13	36	77	302	Extrapolated
Pixel AC-S with LU4A0075DAC-088	Elevator Controls Corporation	13	36	77	326	Extrapolated
Pixel AC-S with LU4A0091DAC-088	Elevator Controls Corporation	13	36	77	326	Extrapolated
Pixel AC-S with LU2A0145DAC-088	Elevator Controls Corporation	13	36	77	328	Extrapolated
Pixel AC-S with LU4A0112DAC-088	Elevator Controls Corporation	13	36	77	337	Interpolated
Pixel AC-S with LU4A0150DAC-088	Elevator Controls Corporation	13	36	77	339	Interpolated
Pixel AC-S with LU2A0180DAC-088	Elevator Controls Corporation	13	36	77	380	UUT-03
Pixel AC-L with LU2A0033DAC-088	Elevator Controls Corporation	17	47	77	385	Interpolated
Pixel AC-L with LU4A0015DAC-088	Elevator Controls Corporation	17	47	77	386	Interpolated
Pixel AC-L with LU4A0018DAC-088	Elevator Controls Corporation	17	47	77	386	Interpolated
Pixel AC-L with LU2A0047DAC-088	Elevator Controls Corporation	17	47	77	388	Interpolated
Pixel AC-L with LU4A0024DAC-088	Elevator Controls Corporation	17	47	77	388	Interpolated
Pixel AC-L with LU4A0031DAC-088	Elevator Controls Corporation	17	47	77	388	Interpolated
Pixel AC-L with LU4A0039DAC-088	Elevator Controls Corporation	17	47	77	395	Interpolated
Pixel AC-L with LU2A0060DAC-088	Elevator Controls Corporation	17	47	77	396	Interpolated
Pixel AC-L with LU2A0075DAC-088	Elevator Controls Corporation	17	47	77	398	Interpolated
Pixel AC-L with LU2A0085DAC-088	Elevator Controls Corporation	17	47	77	403	Interpolated
Pixel AC-L with LU4A0045DAC-088	Elevator Controls Corporation	17	47	77	403	Interpolated
Pixel AC-L with LU2A0115DAC-088	Elevator Controls Corporation	17	47	77	412	Interpolated
Pixel AC-L with LU4A0060DAC-088	Elevator Controls Corporation	17	47	77	412	Interpolated

REVIEWED FOR CODE COMPLIANCE
OSP-0586
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Special Seismic Certification
Table 2 - Continued - Certified Components - Pixel Traction

DCL DYNAMIC CERTIFICATION LABORATORIES,LLC

DCL Project Number:	66090-2201
Manufacturer:	Elevator Controls Corporation
Product Line:	Pixel Elevator Controllers
Mounting Configuration:	Rigid Base Mount
Test Levels:	Sds = 2.00g, z/h=1.0 : Sds = 2.50g, z/h=0.0

Model Number	Manufacturer	Max. Dimensions (in)			Max. Weight	Unit
		Depth	Width	Height		
Pixel AC-L with LU4A0075DAC-088	Elevator Controls Corporation	17	47	77	426	Interpolated
Pixel AC-L with LU4A0091DAC-088	Elevator Controls Corporation	17	47	77	426	Interpolated
Pixel AC-L with LU2A0145DAC-088	Elevator Controls Corporation	17	47	77	438	Interpolated
Pixel AC-L with LU2A0180DAC-088	Elevator Controls Corporation	17	47	77	440	Interpolated
Pixel AC-L with LU4A0112DAC-088	Elevator Controls Corporation	17	47	77	447	Interpolated
Pixel AC-L with LU4A0150DAC-088	Elevator Controls Corporation	17	47	77	449	Interpolated
Pixel AC-L with LU2A0215AAC-088	Elevator Controls Corporation	17	47	77	504	Interpolated
Pixel AC-L with LU4A0180AAC-088	Elevator Controls Corporation	17	47	77	550	UUT-04

REVIEWED FOR CODE COMPLIANCE
OSP-0586
BY: Mohammad Karim
DATE: 04/04/2022
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Special Seismic Certification
Table 3 - Certified Subcomponents - Pixel Hydraulic

DCL Project Number: 66090-2201

Mounting Configuration: Rigid Wall Mount

Test Levels: Sds = 2.00g, z/h=1.0 : Sds = 2.50g, z/h=0.0

Subcomponents						
Subcomponent	**Manufacturer**	**Model Number**	**Description**	**Material**	**Weight**	**Unit**
Enclosure	Group Manufacturing Services	15-001-002	8" x 36" x 30" (DxWxH), NEMA 1	Painted carbon steel	70	UUT-01
		15-001-003	14" x 36" x 48" (DxWxH), NEMA 1	Painted carbon steel	129	UUT-02
PCB	Elevator Controls Corporation	P-MPv04	Pixel Main Microprocessor Board	Fiberglass	0.28	UUT-01, UUT-02
		P-MPIOv05	Pixel Safety Processor I/O Board	Fiberglass	0.31	UUT-01, UUT-02
		P-PDB-Hv01	Pixel Power Distribution for Hydro	Fiberglass	0.57	UUT-01, UUT-02
Terminal Block	Elevator Controls Corporation	P-TB-Mv03	Board for Machine Room Interconnections	Fiberglass	0.13	UUT-01, UUT-02
		P-TB-Hv04	Board for Hoistway Interconnections	Fiberglass	0.12	UUT-01, UUT-02
		P-TB-Cv04	Board for Cartop Interconnections	Fiberglass	0.13	UUT-01, UUT-02
Transformer	Pacific Transformer	4-54-61000	1150VA 50/60 HZ MULTICORE 208-480V Primary - 120V, 240V & 24V Secondary	Iron	24	UUT-01, UUT-02
Power Supply	Weidmuller	1469480000	Output: 24VDC 120W, Input: 115-230VAC	Plastic	0.7	UUT-01, UUT-02
Rescuvator	R&R	RB2-240/60	240vac	Iron	5.78	UUT-01, UUT-02
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-01
		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-02
Fuses	Bussman	FNQ-8	FNQ 8A 500V Time Delay Fuse	Ceramic-Fiber	<1	UUT-01, UUT-02
Contactor	Sprecher+Schuh	CA7-12E-01-24E	3 Pole, 1 NC Auxiliary, 24VDC	Plastic	0.4	UUT-01, UUT-02
Relay	Idec	RU4S-D-24	KHAU Relay	Plastic	<1	UUT-01, UUT-02
Panel Mount Terminals	Weidmuller	1037800000	Panel Mount Terminals	Plastic	<1	UUT-01, UUT-02

APPROVED FOR CODE COMPLIANCE BY: DATE: 04/04/2022 CALIFORNIA BUILDING CODES

Special Seismic Certification
Table 4 - Certified Subcomponents - Pixel Traction

DCL Project Number: 66090-2201

Mounting Configuration: Rigid Base Mount

Test Levels: Sds = 2.00g, z/h=1.0 : Sds = 2.50g, z/h=0.0

Subcomponents

Subcomponent	Manufacturer	Model Number	Description	Material	Weight	Unit
Enclosure	Group Manufacturing Services	15-001-001	Base Mounted 13" x 36" x 62" (DxWxH) With components subplate	Painted carbon steel (NEMA 1)	214	UUT-03
		15-001-030	Base Mounted 17" x 47" x 62" (DxWxH) With components subplate	Painted carbon steel (NEMA 1)	304	UUT-04
PCB	Elevator Controls Corporation	P-MPv04	Pixel Main Microprocessor Board	Fiberglass	0.3	UUT-03, UUT-04
		P-MPIOv05	Pixel Safety Processor I/O Board	Fiberglass	0.3	UUT-03, UUT-04
		P-PDB-Hv01	Pixel Power Distribution for Hydro	Fiberglass	0.6	UUT-03, UUT-04
Terminal Block	Elevator Controls Corporation	P-TB-Mv03	Terminal Block Board for Machine Room Interconnections	Fiberglass	0.1	UUT-03, UUT-04
		P-TB-Hv04	Terminal Block Board for Hoistway Interconnections	Fiberglass	0.1	UUT-03, UUT-04
		P-TB-Cv04	Terminal Block Board for Cartop Interconnections	Fiberglass	0.1	UUT-03, UUT-04
Transformer	Pacific Transformer	4-54-61000	1150VA 50/60 HZ MULTICORE 208-480V Primary - 120V, 240V & 24V Secondary	Iron	24	UUT-03, UUT-04
Power Supply	Weidmuller	1469480000	Output: 24VDC 120W, Input: 115-230VAC	Plastic	0.7	UUT-03, UUT-04
Starter	Cutler-Hammer	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-03
		XTCE185H22A	185A Frame H	Plastic	4.2	UUT-04
Fuses	Bussman	FNQ-8	FNQ 8A 500V Time Delay Fuse	Ceramic-Plastic	< 0.1	UUT-04
		MDA-4	MDA 4A 250V Time Delay Fuse	Glass	< 0.1	UUT-03, UUT-04
		MDA-5	MDA 5A 250V Time Delay Fuse	Glass	< 0.1	UUT-03, UUT-04
		MDA-6	MDA 6A 250V Time Delay Fuse	Glass	< 0.1	UUT-03, UUT-04
Contactor	Sprecher+Schuh	CA7-12E-01-24E	3 Pole Contactor, 1 NC Auxiliary Contact, 24VDC Coil Contactor	Plastic	0.4	UUT-03, UUT-04
	TYCO	199ABX-14	PRD-11AH0-120 2 POLE 20A 120VAC Coil, Power Relay (With DC Blowout Magnet)	Plastic	0.3	UUT-03, UUT-04
Relay	Idec	RU4S-D-24	KHAU Relay	Plastic	0.0	UUT-03, UUT-04

REVIEWED FOR CODE COMPLIANCE BY: HCAI OSP-0586 DATE: 04/04/2022 CALIFORNIA BUILDING CODE, 2019

Special Seismic Certification
Table 4 - Continued - Certified Subcomponents - Pixel Traction

DCL Project Number: 66090-2201

Test Levels: Sds = 2.00g, z/h=1.0 : Sds = 2.50g, z/h=0.0

Subcomponents

Subcomponent	Manufacturer	Model Number	Description	Material	Weight	Unit
Panel Mount Terminals	Weidmuller	1037800000	Panel Mount Terminals	Plastic	0.01	UUT-03, UUT-04
Power Terminal Block	Marathon	1433126	600V 310A 3 Pole	Carbon steel	0.6	UUT-03, UUT-04
Diode Bridge	Mot	MB3510	1000V 35A	Plastic	0.03	UUT-03, UUT-04
Braking Module	Magnatek	05P00671-0105	Low Voltage Dynamic Braking Module 200V (80A)	Plastic	2.0	UUT-03
		05P00671-0103	High Voltage Dynamic Braking Module 400V (60A)	Plastic	2.0	UUT-04
Power Resistor	Ohmite	76439-10R	10 OHM /FIXED/TERM LUGS 2000W Edgewound	Ceramic	1.9	UUT-03, UUT-04
		08-012-001	Assorted /FIXED/TERM LUGS 225W Edgewound	Ceramic	0.3	UUT-03, UUT-04
		08-012-010	Assorted /FIXED/TERM LUGS 225W Edgewound	Ceramic	0.3	UUT-03, UUT-04
Drive Units	Magnatek	LU4A0015DAC-088	L1000A 400V@14.8A - 7.5HP (5.5"Wx10.2"Hx6.6"D)	Plastic	8.6	Extrapolated
		LU2A0033DAC-088	L1000A 200V@33.0A - 7.5HP (5.5"Wx10.2"Hx6.6"D)	Plastic	8.8	Extrapolated
		LU4A0018DAC-088	L1000A 400V@18A - 10HP (5.5"Wx10.2"Hx6.6"D)	Plastic	8.9	Extrapolated
		LU4A0024DAC-088	L1000A 400V@24A - 15HP (7.1"Wx11.8"Hx6.6"D)	Plastic	11.9	Extrapolated
		LU4A0031DAC-088	L1000A 400V@31A - 20HP (7.1"Wx11.8"Hx7.4"D)	Plastic	11.9	Extrapolated
		LU2A0047DAC-088	L1000A 200V@47.0A - 10HP (7.1"Wx11.8"Hx6.6"D)	Plastic	12.3	Extrapolated
		LU4A0039DAC-088	L1000A 400V@39A - 20+HP (8.7"Wx13.8"Hx7.8"D)	Plastic	18.3	Extrapolated
		LU2A0060DAC-088	L1000A 200V@60.0A - 15HP (8.7"Wx13.8"Hx7.8"D)	Plastic	19.2	Extrapolated
		LU2A0075DAC-088	L1000A 200V@75.0A - 20HP (8.7"Wx13.8"Hx7.8"D)	Plastic	21.4	Extrapolated
		LU2A0085DAC-088	L1000A 200V@85.0A - 25HP (9.8"Wx15.7"Hx10.2"D)	Plastic	46.3	Extrapolated
		LU4A0045DAC-088	L1000A 400V@45A - 25HP (9.8"Wx15.7"Hx10.2"D)	Plastic	46.3	Extrapolated
		LU2A0115DAC-088	L1000A 200V@115.0A - 30HP (10.8"Wx17.7'"Hx10.2"D)	Plastic	55.1	Extrapolated
		LU4A0060DAC-088	L1000A 400V@60A - 30HP (10.8"Wx17.7'"Hx10.2"D)	Plastic	55.1	Extrapolated
		LU4A0075DAC-088	L1000A 400V@75A - 40HP (12.8"Wx17.7'"Hx10.2"D)	Plastic	79.4	Extrapolated
		LU4A0091DAC-088	L1000A 400V@91A - 40HP (12.8"Wx17.7'"Hx10.2"D)	Plastic	79.4	Extrapolated
		LU2A0145DAC-088	L1000A 200V@145.0A - 40HP (12.8"Wx21.7'"Hx11.1"D)	Plastic	81.6	Extrapolated
		LU2A0180DAC-088	L1000A 200V@180.0A - 45HP (12.8"Wx21.7'"Hx11.1"D)	Plastic	83.8	UUT-03
		LU4A0112DAC-088	L1000A 400V@112A - 50HP (12.8"Wx21.7'"Hx11.1"D)	Plastic	90.4	Interpolated
		LU4A0150DAC-088	L1000A 400V@150A - 60HP (12.8"Wx21.7'"Hx11.1"D)	Plastic	92.6	Interpolated
		LU2A0215AAC-088	L1000A 200V@215.0A - 50HP (17.7"Wx27.8'"Hx13.0"D)	Plastic	167.6	Interpolated
		LU4A0180AAC-088	L1000A 400V@180A - 75HP (17.7"Wx27.8'"Hx13.0"D)	Plastic	174.2	UUT-04

REVIEWED FOR CODE COMPLIANCE
BY: Miami-Dade County
DATE: 04/27/2022
SEE CONDITIONS IN APPROVAL LETTER

Special Seismic Certification
Table 5 - Tested Units

DCL Project Number: 66090-2201

Manufacturer: Elevator Controls Corporation

Product Line: Pixel Elevator Controllers

Test Levels: Sds = 2.00g, z/h=1.0 : Sds = 2.50g, z/h=0.0

Model Number	Manufacturer	Dimensions (in)			Weight (lb.)	Mounting Configuration	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-01
Pixel-Hydro-L with PCEC-234-600V-120V	Elevator Controls Corporation	14.5	36.0	48.0	265	Wall Mounted	UUT-02
Pixel AC-S with LU2A0180DAC-088	Elevator Controls Corporation	13.0	36.0	77.0	380	Base Mounted	UUT-03
Pixel AC-L with LU4A0180AAC-088	Elevator Controls Corporation	17.0	47.0	77.0	550	Base Mounted	UUT-04

REVIEWED FOR CODE COMPLIANCE
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OSP-0586
BY: Mohammad Karim
DATE: 04/04/2022
CALIFORNIA BUILDING CODE, 2019

UUT-01
UNIT UNDER TEST (UUT)
Summary Sheet

DCL Project Number: 66090-2201

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, Terminal Block, Transformer, Power Supply, Rescuvator, Starter, Fuses, Contactor, Relay, Panel Mount Terminals

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

UUT Properties

Operating Weight (lb)	Dimensions (inches)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
144	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 2019	ICC-ES AC156	2.00	1.0	1.5	3.20	3.00	-	-
		2.50	0.0		-	-	1.67	1.67

Unit Mounting Description:

UUT-01 was rigid wall mounted to the DCL wall interface fixture with (4) 3/8'' diameter, grade 5, bolts in the manufacturer designated mounting locations.



Overall view of UUT-01

ICC-ES OSP-0586 REVIEWED FOR CODE COMPLIANCE CALIFORNIA BUILDING CODE 2019 BY: Mohammad Karimi DATE: 04/04/2022

UUT-02
UNIT UNDER TEST (UUT)
Summary Sheet

DCL Project Number: 66090-2201

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, Terminal Block, Transformer, Power Supply, Rescuvator, Starter, Fuses, Contactor, Relay, Panel Mount Terminals

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

UUT Properties

Operating Weight (lb)	Dimensions (inches)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
265	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 2019	ICC-ES AC156	2.00	1.0	1.5	3.20	3.00	-	-
		2.50	0.0		-	-	1.67	1.67

Unit Mounting Description:

UUT-02 was rigid wall mounted to the DCL wall interface fixture with (4) 3/8'' diameter, grade 5, bolts in the manufacturer designated mounting locations.



Overall view of UUT-02

ICC-ES OSP-0586 REVIEWED FOR CODE COMPLIANCE CALIFORNIA BUILDING CODE 2019 BY: Mohammad Karimi DATE: 04/04/2022

UUT-03
UNIT UNDER TEST (UUT)
Summary Sheet

DCL Project Number: 66090-2201

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, Terminal Block, Transformer, Power Supply, Starter, Fuses, Contactor, Relay, Panel Mount Terminals, Power Terminal Block, Diode Bridge, Breaking Module, Power Resistor, Drive Units

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

UUT Properties

Operating Weight (lb)	Dimensions (inches)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
380	13.0	36.0	77.0	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 2019	ICC-ES AC156	2.00	1.0	1.5	3.20	3.00	-	-
		2.50	0.0		-	-	1.67	1.67

Unit Mounting Description:
UUT-03 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.



Overall view of UUT-03

ICC-ES OSP-0586 DATE: 04/04/2022 BY: Mohammad Karim REVIEWED FOR CODE COMPLIANCE CHECK WITH BUILDING CODE

UUT-04
UNIT UNDER TEST (UUT)
Summary Sheet

DCL Project Number: 66090-2201

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, Terminal Block, Transformer, Power Supply, Starter, Fuses, Contactor, Relay, Panel Mount Terminals, Power Terminal Block, Diode Bridge, Breaking Module, Power Resistor, Drive Units

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

UUT Properties

Operating Weight (lb)	Dimensions (inches)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
550	17.0	47.0	77.0	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 2019	ICC-ES AC156	2.00	1.0	1.5	3.20	3.00	-	-
		2.50	0.0		-	-	1.67	1.67

Unit Mounting Description:
UUT-04 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.



Overall view of UUT-04

ICC-ES OSP-0586 REVIEWED FOR CODE COMPLIANCE BY: Mohammad Karim DATE: 04/04/2022 CALIFORNIA BUILDING CODE