



OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT
FACILITIES DEVELOPMENT DIVISION

APPLICATION FOR OSHPD SPECIAL SEISMIC
CERTIFICATION PREAPPROVAL (OSP)

OFFICE USE ONLY
APPLICATION #: OSP - 0011

OSHPD Special Seismic Certification Preapproval (OSP)

Type: [] New [X] Renewal

Manufacturer Information

Manufacturer: Eaton
Manufacturer's Technical Representative: Art Jur
Mailing Address: 3990 Old Tasso Road NE, Cleveland, TN 37312
Telephone: 423-478-0201 Email: ArtJJur@eaton.com

Product Information

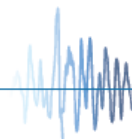
Product Name: Unit and Group Mounted Elevator Control Switches
Product Type: Elevator Control Switches
Product Model Number: See Product Range Summary
General Description: Switch assemblies used for the controlled shut down of single or multiple elevator units
Mounting Description: Rigid wall mounted.

Applicant Information

Applicant Company Name: Eaton
Contact Person: Eddie Wilkie
Mailing Address: 175 Vista Blvd, Arden, NC 28704
Telephone: 828-651-0707 Email: eddiewilkie@eaton.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: Eddie Wilkie Date: 10/28/19
Title: Director of Engineering Company Name: Eaton





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

Company Name: ISAT

Name: William V. Joerger California License Number: SE 4545

Mailing Address: 1020 Crews Road, Quite Q, Matthews, NC 28105

Telephone: 510-714-0216 Email: wvjoerger@isatsb.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): _____

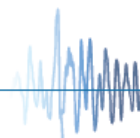
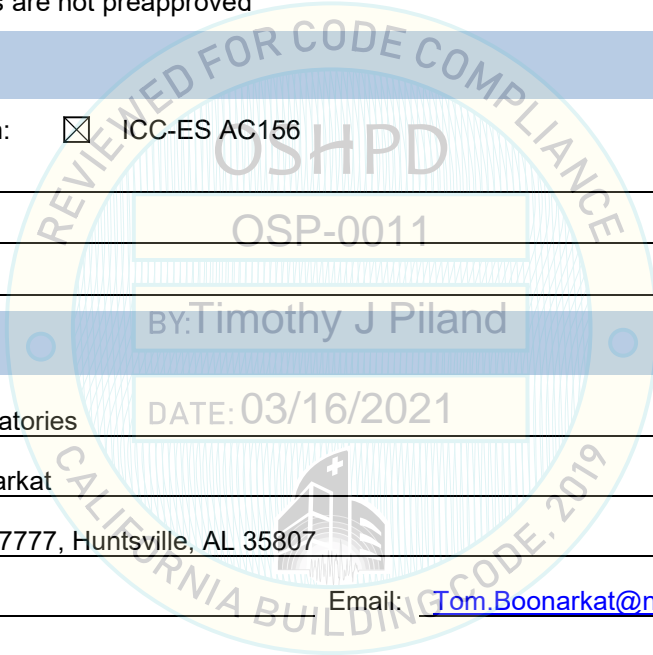
Testing Laboratory

Company Name: NTS Laboratories DATE: 03/16/2021

Contact Name: Tom Boonarkat

Mailing Address: P.O. Box 77777, Huntsville, AL 35807

Telephone: 256-716-4291 Email: Tom.Boonarkat@nts.com





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Seismic Parameters

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

Design Basis of Equipment or Components (F_p/W_p) = 2.06

S_{DS} (Design spectral response acceleration at short period, g) = 2.74

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

R_p (Equipment or component response modification factor) = 6.0

Ω_0 (System overstrength factor) = 2

I_p (Importance factor) = 1.5

z/h (Height factor ratio) = 1

Equipment or Component Natural Frequencies (Hz) = N/A, wall mounted.

Overall dimensions and weight (or range thereof) = See Product Range Summary

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): _____

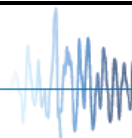
OSHPD Approval (For Office Use Only) – Approval Expires on December 31, 2025

Signature: Date: March 16, 2021

Print Name: Timothy J. Piland Title: SSE

Special Seismic Certification Valid Up to: S_{DS} (g) = 2.74 z/h = 1

Condition of Approval (if applicable): _____



Product Range Summary
Wall Mounted Elevator Control Panels^{6,7}

Model	Model #	Rating (Amps)	NEMA Enclosure Type ⁵	Voltage (Maximum)	Width (in.)	Height (in.)	Depth (in.)	Conductor Material (Cu/Al)	Weight (lbs.)	S _{ds} (g)	Notes	UUT
Elevator Control	ES1T1R1F1B	30	1	600VAC	17.25	29.75	11.5	Cu	51	2.74	1	1
	ES1XXXXXX ² ECS1XXXXXX ²	30	1, 3R, 4	600VAC	17.25	29.75	11.5	Cu	51		1	Interpolated
	ES2XXXXXX ² ECS2XXXXXX ²	60	1, 3R, 4	600VAC	17.25	29.75	11.5	Cu	60		1	Interpolated
	ES3XXXXXX ² ECS3XXXXXX ²	100	1, 3R, 4	600VAC	17.25	29.75	11.5	Cu	60		1	Interpolated
	ES4XXXXXX ² ECS4XXXXXX ²	200	1, 3R, 4	600VAC	21.5	32.75	11.5	Cu	76		1	Interpolated
	ES5T1R1GF3B	400	1	600VAC	26.75	54.5	11.5	Cu	142	2.74	1	19
	See Note 3	400	1, 3R, 4	600VAC	26.75	54.5	11.5	Cu	142		1	Interpolated
	See Note 3	400	1	600VAC	40	57	11.5	Cu	400		1	Interpolated
	See Note 3	600	1	600VAC	40	73.75	11.5	Cu	460		1	Interpolated
	See Note 3	800	1	600VAC	40	90	11.5	Cu	530		1	Interpolated
	See Note 3	1200	1	600VAC	40	90	12	Cu	582		1	Interpolated
	SM060812-001	1200	1	600VAC	40.5	90.25	12	Cu	582	2.74	1	2

1 - Carbon Steel Enclosure

2 - See Product Numbering System

3 - Engineered to Order. Unique Model number assigned to specific product.

5 - NEMA 3R includes rain shield and gasket material for door. NEMA 4 includes gasket material for seams.

6 -Manufactured by Eaton

7 - Marked as either "Eaton Elevator Control ", "Siemens Elevator Control" or "Bussman Power Module Panel".



Certified Major Component Summary
Wall Mounted Elevator Control Switches

Molded Case Switches (Single)								
(Model)/Frame	Size (Amps)	Voltage (Maximum)	Dimensions / Weights				Manufacturer	UUT
			Width (in.)	Depth (in.)	Height (in.)	Weight (lbs.)		
(6629C85G10)/F	30	600	4.13	3.38	6	4.5	Eaton	1
F	30-200	600	4.13	3.38	6	4.5	Eaton	Interpolated
LG	400	600	5.48	4.09	10.13	16	Eaton	Interpolated
(LGK3400KSG)/LG	400	600	5.48	4.09	10.13	16	Eaton	19

Molded Case Switches (Twins)								
Model	Size (Amps)	Voltage	Dimensions / Weights				Manufacturer	Unit
			Width (in.)	Depth (in.)	Height (in.)	Weight (lbs.)		
FDPB3601JSA	Blank/30	600	28.875	8.10	8.25	22	Eaton	2
FDPB3602JSA	Blank/60	600	28.875	8.10	8.25	22	Eaton	Interpolated
FDPB3603JSA	Blank/100	600	28.875	8.10	8.25	22	Eaton	Interpolated
FDPB3604JSA	Blank/200	600	28.875	8.10	8.25	22	Eaton	Interpolated
FDPB3611JSA	30/30	600	28.875	8.10	8.25	26	Eaton	Interpolated
FDPB3612JSA	30/60	600	28.875	8.10	8.25	26	Eaton	Interpolated
FDPB3613JSA	30/100	600	28.875	8.10	8.25	26	Eaton	Interpolated
FDPB3614JSA	30/200	600	28.875	8.10	8.25	29	Eaton	Interpolated
FDPB3622JSA	60/60	600	28.875	8.10	8.25	26	Eaton	Interpolated
FDPB3623JSA	60/100	600	28.875	8.10	8.25	26	Eaton	Interpolated
FDPB3624JSA	60/200	600	28.875	8.10	8.25	29	Eaton	Interpolated
FDPB3633JSA	100/100	600	28.875	8.10	8.25	26	Eaton	2
FDPB3634JSA	100/200	600	28.875	8.10	8.25	29	Eaton	Interpolated
FDPB3644JSA	200/200	600	28.875	8.10	8.25	32	Eaton	2

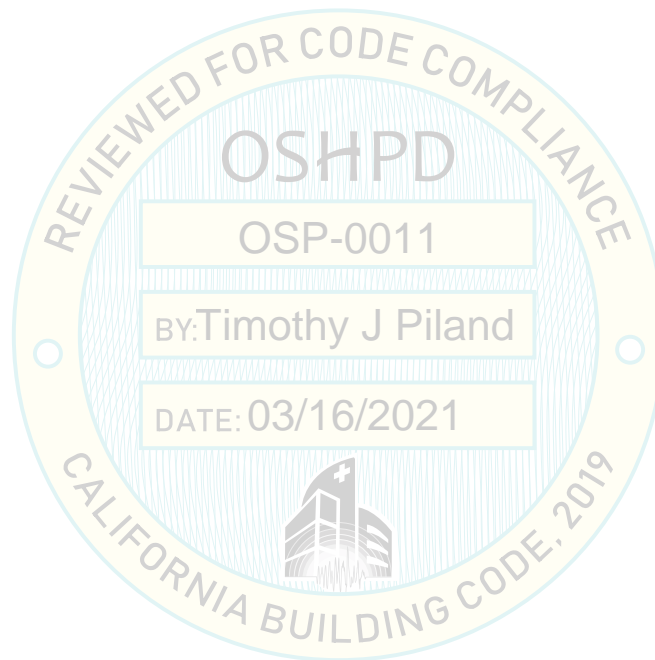
Control Relays								
Model	Operating Voltage	Poles	Dimensions (in.)			Weight (lbs.)	Manufacturer	Unit
			Width	Height	Depth			
D5PR3A-A3	120 Vac	3	1.37	2.31	1.37	0.19	Eaton	1, 19
D5PR3T1	24 Vdc	3	1.50	2.18	1.38	0.19	Eaton	Interpolated
2961419	120 Vac	1	0.50	1.14	0.62	0.03	Phoenix	2

Transformers									
Model	Voltage (Primary)	Size (VA)	Dimensions (in.)			Weight (lbs.)	Winding Material	Manufacturer	Unit
			Width	Height	Depth				
C0100E5EFB	480 Vac	100	3.75	4.63	3.62	5.77	Copper	Eaton	1,2,19

Certified Enclosures¹ - Elevator Control

Model Number	Enclosure Dimensions (in.)			NEMA Enclosure Ratings	Manufacturer	UUT
	Width	Height	Depth			
N/A	17.25	29.75	11.50	1	Eaton	1
N/A	17.25	29.75	11.50	3R, 4	Eaton	Interpolated
N/A	26.75	54.50	11.50	3R, 4	Eaton	Interpolated
N/A	26.75	54.50	11.50	1	Eaton	19
N/A	40.50	73.75	12.00	1	Eaton	Interpolated
N/A	40.50	90.25	12.00	1	Eaton	2

1. All enclosures made from carbon steel.





Elevator Control
Resonant Frequency Summary

Report	UUT	Front to Back (Hz)	Side to Side (Hz)	Vertical (Hz)
70282R12	1	N/A	N/A	N/A
70282R12	2	N/A	N/A	N/A
70282R12	19	N/A	N/A	N/A

* - UUT rigidly mounted to wall fixture.



UUT 1 (Unit Under Test) Summary Sheet

Manufacturer: Eaton Corporation

Product Line: Elevator Control

Model Number: ES1T1R1F1B

Product Construction Summary:

Cabinet is constructed of mild carbon steel, NEMA 1 Enclosure rating.

Options/Component Summary: Relay (D5PR3A-A3), Control Transformer (C0100E5EFB), Molded Case Switch (F Frame)

UUT Properties (As Tested)

Weight (lb)	Dimensions (inches)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
51	11.5	17.25	29.75	N/A	N/A	N/A

Seismic Test Parameters

Building Code	Test Criteria	C.G.-Height (in.)	Sds	z/h	Ip	Aflx-H	Arig-H	Aflx-V	Arig-V
CBC 2019	ICC-ES AC156	N/A	2.74	1	1.5	4.38	3.29	1.84	0.74

UUT maintained structural integrity and functionality as observed in post test inspection and operation checks.



UUT 1 (top center) was mounted to a rigid wall frame using (4) 3/8-16 bolts. The steel frame was welded to the shake table.

UUT 2 (Unit Under Test) Summary Sheet

Manufacturer: Eaton Corporation

Product Line: Elevator Control

Model Number/UUT Identifier: ECP1200/SM060812-001

Product Construction Summary:

Cabinet is constructed of mild carbon steel, NEMA Enclosure 1 rating.

Options/Component Summary: Molded Case Switch Assemblies (FDPB3612JSA, FDPB3633JSA, FDPB3644JSA). Control Transformer (C0100E5EFB). Relay (2961419).

UUT Properties (As Tested)

Weight (lbs.)	Dimensions (inches)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
582	12	40.5	90.25	N/A	N/A	N/A

Seismic Test Parameters

Building Code	Test Criteria	C.G.-Height (in.)	Sds	z/h	Ip	Aflx-H	Arig-H	Aflx-V	Arig-V
CBC 2019	ICC-ES AC156	N/A	2.74	1	1.5	4.38	3.29	1.84	0.74

UUT maintained structural integrity and functionality as observed in post test inspection and operation checks.



UUT 2 (left) was mounted to a rigid wall frame using (4) 1/2-13 bolts. The steel frame was welded to the shake table.

UUT 19 (Unit Under Test) Summary Sheet

Manufacturer: Eaton Corporation

Product Line: Elevator Control

Model Number: ES5T1R1GF3B

Product Construction Summary:

Cabinet is constructed of mild carbon steel, NEMA Enclosure 1 rating.

Options/Component Summary: Relay (D5PR3A-A3), Control Transformer (C0100E5EFB), Molded Case

Switch (L Frame, Series G)

UUT Properties (As Tested)

Weight (lbs.)	Dimensions (inches)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
142	11.5	26.75	54.5	N/A	N/A	N/A

Seismic Test Parameters

Building Code	Test Criteria	C.G.-Height (in.)	Sds	z/h	Ip	Aflx-H	Arig-H	Aflx-V	Arig-V
CBC 2019	ICC-ES AC156	N/A	2.74	1	1.5	4.38	3.29	1.84	0.74

UUT maintained structural integrity and functionality as observed in post test inspection and operation checks.



UUT19 (bottom left) was mounted to a rigid wall frame using (4) 1/2-13 bolts. The steel frame was welded to the shake table.