



DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION
FACILITIES DEVELOPMENT DIVISION

APPLICATION FOR HCAI SPECIAL SEISMIC
CERTIFICATION PREAPPROVAL (OSP)

OFFICE USE ONLY

APPLICATION #: OSP-0781

HCAI Special Seismic Certification Preapproval (OSP)

Type: New Renewal

Manufacturer Information

Manufacturer: Fulton Equipment Pacific

Manufacturer's Technical Representative: Sean Skiles

Mailing Address: 2777 E Dorothy Way, Fresno, CA 93706

Telephone: (707) 419-5885

Email: sean.skiles@fulton-pacific.com

Product Information

Product Name: Industrial Control Panels

Product Type: Boiler Control Panels

Product Model Number: See Attachment

General Description: Boiler control panels containing fuses, power supplies, combustion controllers, relays, and switches.

Mounting Description: Rigid and Isolated, Wall Mounted with Manufacturer's Brackets, 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.

Applicant Information

Applicant Company Name: Dynamic Certification Laboratories

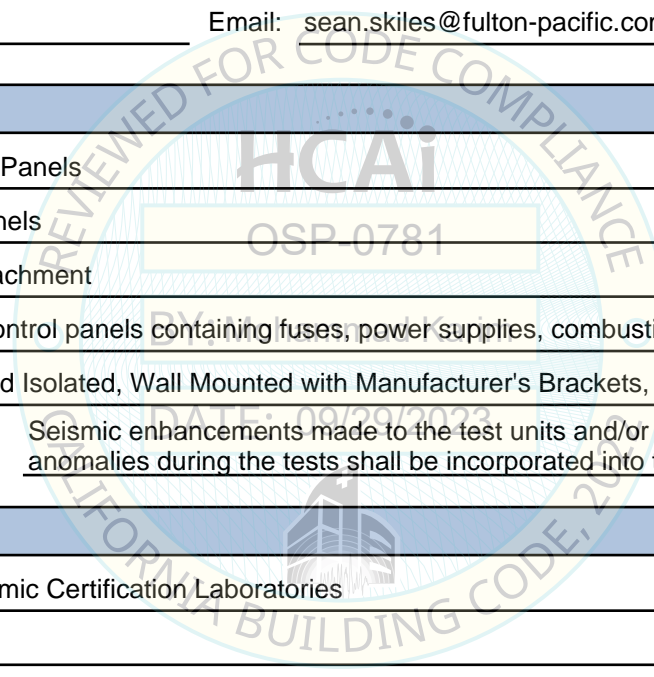
Contact Person: Kelly Laplace

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

Telephone: (775) 358-5085

Email: kelly@shaketest.com

Title: Business Manager





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

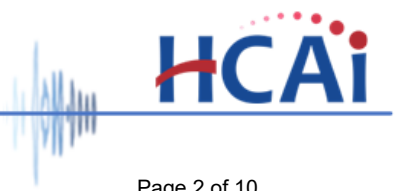
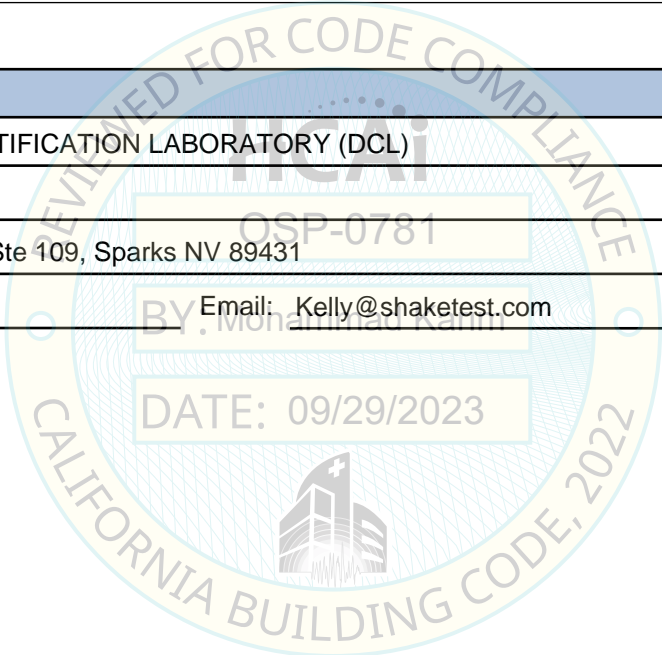
Company Name: THE VMC GROUP
Name: Kenneth Tarlow California License Number: S2851
Mailing Address: 980 9th Street, 16th Floor, Sacramento, CA 95814
Telephone: (832) 627-2214 Email: ken.tarlow@thevmcgroup.com

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: Kelly Laplace
Mailing Address: 1315 Greg St., Ste 109, Sparks NV 89431
Telephone: (775) 358-5085 Email: Kelly@shaketest.com





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Seismic Parameters

Design Basis of Equipment or Components (F_p/W_p) = 1.50 (SDS=2.0g, z/h=1); 1.13 (SDS= 2.5g, z/h=0)

SDS (Design spectral response acceleration at short period, g) = SDS = 2.0, z/h=1; SDS= 2.5, z/h=0

a_p (Amplification factor) = 2.5

R_p (Response modification factor) = 6.0

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

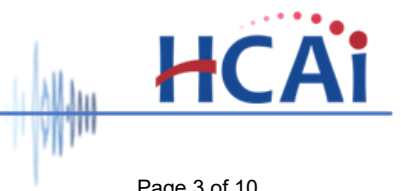
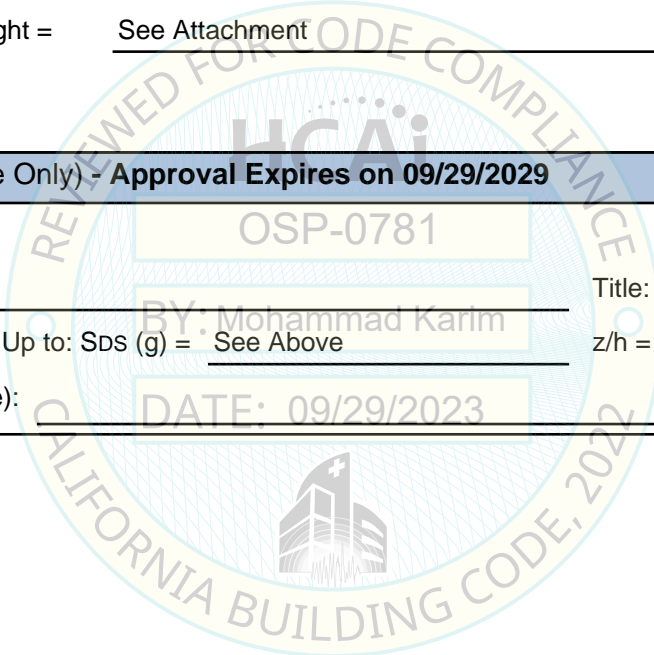
HCAI Approval (For Office Use Only) - Approval Expires on 09/29/2029

Date: 9/29/2023

Name: Mohammad Karim Title: Supervisor, Health Facilities

Special Seismic Certification Valid Up to: SDS (g) = See Above z/h = See Above

Condition of Approval (if applicable): DATE: 09/29/2023



Special Seismic Certification
Table 1 - Certified Components



DCL Project Number: 05113-2301

Manufacturer: Fulton Equipment Pacific

Product Type: Boiler Control Panels

Mounting Configuration: Rigid and isolated wall mount with manufacturer-provided brackets

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

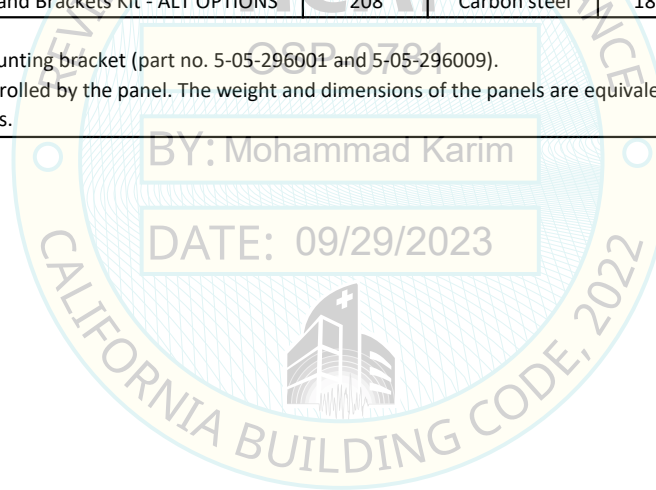
Model Number	Description ²	Voltage (Volts)	Construction Material	Max. Dimensions (in)			Max. Weight ¹ (lb.)	Unit
				Depth ¹	Width	Height		
7-53-060800-S-XXXX	VSRT 40-60hp Box, Back Panel, and Brackets Kit - STOCK OPTIONS	208 - 480	Carbon steel	18.0	24.5	36.5	117.8	Extrapolated ³
7-53-060800-M-0001	VSRT 40-60hp Box, Back Panel, and Brackets Kit - ALT OPTIONS	480	Carbon steel	18.0	24.5	36.5	117.8	UUT-01a,b
7-53-060800-M-XXXX	VSRT 40-60hp Box, Back Panel, and Brackets Kit - ALT OPTIONS	208 - 480	Carbon steel	18.0	24.5	36.5	117.8 - 120.8	Interpolated
7-53-060800-M-0002	VSRT 40-60hp Box, Back Panel, and Brackets Kit - ALT OPTIONS	208	Carbon steel	18.0	24.5	36.5	120.8	UUT-02a,b

Notes:

1. Unit depth and weight include manufacturer-provided mounting bracket (part no. 5-05-296001 and 5-05-296009).
2. Hp rating only describes the rating of the boiler being controlled by the panel. The weight and dimensions of the panels are equivalent regardless of hp rating.
3. Extrapolated units are depopulated versions of tested units.

BY: Mohammad Karim

DATE: 09/29/2023



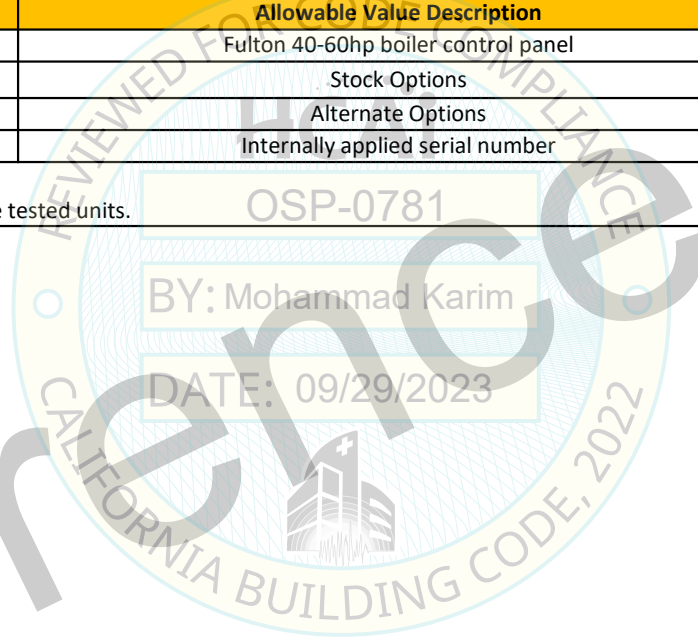
Special Seismic Certification
Table 2 - Nomenclature Chart



DCL Project Number: 05113-2301
Manufacturer: Fulton Equipment Pacific
Product Type: Boiler Control Panels
Mounting Configuration: Rigid and isolated wall mount with manufacturer-provided brackets
Test Levels: Sds = 2.00g, z/h=1.0; Sds = 2.50g, z/h=0.0

Nomenclature: x-xx-xxxxxx-y-XXXX			
Nomenclature	Allowable Value	Allowable Value Description	Unit
x-xx-xxxxxx	7-53-060800	Fulton 40-60hp boiler control panel	UUT-01a,b and UUT-02a,b
y	S	Stock Options	Extrapolated ¹
	M	Alternate Options	UUT-01a,b and UUT-02a,b
XXXX	0001 - 9999	Internally applied serial number	UUT-01a,b and UUT-02a,b

Notes:
 1. Extrapolated options are depopulated versions of the tested units.



Reference

Special Seismic Certification
Table 3 - Certified Subcomponents



DCL Project Number: 05113-2301

Model Number	Manufacturer	Description	Material	Mounting	Weight (lb.)	Unit
Enclosures						
SCE-36N2412LP	SCE	Panel Box, 36" x 24" x 12", NEMA 1, Pre-Punched, Powder Coated	Carbon Steel	Boiler Bracket	73	UUT-01a,b, UUT-02a,b
Displays						
AZL23.00A9	SCC Inc.	AZL Display Module AZL23.00A9 [LMV 3]	Plastic	Panel Mount	<1	UUT-01a,b, UUT-02a,b
TDC207	SCC Inc.	Cable for LMV3 Display	Polycarbonate	Panel Mount	<1	UUT-01a,b, UUT-02a,b
TDC48R	SCC Inc.	AZL Cable Adapter for LMV3 Display	Plastic	Panel Mount	<1	UUT-01a,b, UUT-02a,b
AGG3.131	SCC Inc.	LMV3 Plug Connector Set	Plastic	Panel Mount	<1	UUT-01a,b, UUT-02a,b
2080-LCD	Allen-Bradley	1.5" LCD Display	Plastic	Panel Mount	<1	UUT-01a,b
Controllers						
LMV36.520A1	SCC Inc.	LMV36.520A1 Control - 120v	Plastic	DIN Rail	2	UUT-01a,b, UUT-02a,b
UT32A-000-11-00	Yokogawa	Yokogawa UT32A Process Controller	Polycarbonate Resin	Door Mounted	1	UUT-01a,b, UUT-02a,b
WCNP110-A-N	Cyclops Process Equipment	Walchem Panel Mount Conductivity Control w/ Analog Output	Polycarbonate Resin	Panel Mount	2	UUT-02a,b
OCI412.10	SCC Inc.	ModBus Interface Module for LMV3 Control	Plastic	DIN Rail	<1	UUT-02a,b
2080-LC10-12AWA	Allen-Bradley	Micro810 Controller	Plastic	Panel Mount	<1	UUT-01a,b
Fuse Holders						
LFJ600603CID	Littelfuse	60 Amp 3-Pole Class J Box Lug Fuse Block	Thermoplastic	DIN Rail	<1	UUT-02a,b
LPSM001	Littelfuse	1 Pole 30 Amp Dead Front Fingersafe Fuse Holder	Plastic	DIN Rail	<1	UUT-01a,b, UUT-02a,b
LPSM002	Littelfuse	2 Pole 30 Amp Dead Front Fingersafe Fuse Holder	Plastic	DIN Rail	<1	UUT-01a,b, UUT-02a,b
LFJ600303CID	Littelfuse	30 Amp 3-Pole Class J Box Lug Fuse Block	Thermoplastic	DIN Rail	<1	UUT-01a,b
Fuse Block Covers						
LFJ60060FBC	Littelfuse	60 Amp Fingersafe Fuse Block Cover	Plastic	DIN Rail	<1	UUT-02a,b
LFJ60030FBC	Littelfuse	30 Amp Fingersafe Fuse Block Cover	Plastic	DIN Rail	<1	UUT-01a,b
Fuses						
KLKD008	Littelfuse	8 Amp CC Fast Acting Fuse	Melamine	DIN Rail	<1	UUT-01a,b, UUT-02a,b
KLDR07.5	Littelfuse	7.5 Amp Time Delay Fuse	Melamine	DIN Rail	<1	UUT-02a,b
JTD045ID	Littelfuse	FUSE, 45 AMP, TIME DELAY, CLASS J, 600V	Melamine	DIN Rail	<1	UUT-02a,b
ATQR2	Mersen	2 Amp CC Time Delay Fuse	Fiberglass	DIN Rail	<1	UUT-01a,b
ATQR3	Mersen	3 Amp CC Time Delay Fuse	Fiberglass	DIN Rail	<1	UUT-01a,b
ATQR5	Mersen	5 Amp CC Time Delay Fuse	Fiberglass	DIN Rail	<1	Interpolated
AJT25	Mersen	Class J 25 Amp Time Delay Fuse	Fiberglass	DIN Rail	<1	Interpolated
AJT20	Mersen	20 Amp Time Delay J Fuse	Fiberglass	DIN Rail	<1	UUT-01a,b
Disconnectors						
OT63F3	ABB	60A Non-Fused Disconnect	Plastic	DIN Rail	<1	UUT-02a,b
OPX6X290	ABB	Disconnect Shaft (290mm)	Carbon Steel	DIN Rail	<1	UUT-02a,b
OHY65J6	ABB	Disconnect Switch (Red Handle w/Red Insert)	Plastic	Panel Mount	<1	UUT-02a,b

Special Seismic Certification
Table 3 - Certified Subcomponents (Continued)



DCL Project Number: 05113-2301

Model Number	Manufacturer	Description	Material	Mounting	Weight (lb.)	Unit
Switches						
ZB5AK1333/ZB5AZ103 /ZBVG3	Schneider Electric	Illuminated Green 3 Position Switch, 2 Double Pole N/O Contact	Plastic	Panel Mount	<1	UUT-01a,b, UUT-02a,b
ZB5AW143	Schneider Electric	120V Red Illuminated Push Button W/ Single Pole	Plastic	Panel Mount	<1	UUT-01a,b, UUT-02a,b
52PP2A2/52AAR/52B AE	Siemens	Emergency Stop	Plastic	Panel Mount	<1	UUT-02a,b
XB5AVG4	Schneider Electric	Red Panel Light 120V - NEMA 4	Plastic	Panel Mount	<1	UUT-01a,b, UUT-02a,b
XB5AA21	Schneider Electric	Pushbutton, 22mm	Plastic	Panel Mount	<1	UUT-01a,b, UUT-02a,b
Relays						
700-HLT1U1	Allen-Bradley	120V Coil Relay 1PDT, 6 Amp	Plastic	DIN Rail	<1	UUT-01a,b, UUT-02a,b
700-HLT12U1	Allen-Bradley	Relay, 120V-AC	Plastic	DIN Rail	<1	UUT-01a,b, UUT-02a,b
700HA32A1/700-HN125	Allen-Bradley	General Purpose Relay and Base	Plastic	DIN Rail	<1	UUT-01a,b
LW-1-C-1-A-03-BE	Fulton	Fulton Water Level Safety Relay 120V w/Test Function	Plastic	DIN Rail	<1	UUT-01a,b, UUT-02a,b
OT11-PC	Custom Connector Corp.	11 pin Base for Fulton Low/High Water Relay	Plastic	DIN Rail	<1	UUT-01a,b, UUT-02a,b
OT08-PC	Custom Connector Corp.	8 pin Base for Fulton Feed Water Relay	Plastic	DIN Rail	<1	UUT-01a,b
16MB1MO-FF	Gems	Fulton Feedwater Control Relay 120V	Plastic	DIN Rail	<1	UUT-01a,b
RR2KP-UAC120V	Idec	Idec Latch Relay RR2KP	Plastic	DIN Rail	<1	UUT-02a,b
SR3P-05C	Idec	Idec Relay Base	Plastic	DIN Rail	<1	UUT-02a,b
THR-11662-F30ST	Macromatic	30 Second Fixed Time Delay Relay	Plastic	DIN Rail	<1	UUT-02a,b
Communication Protocol Translator Modules						
FPC-N54-1851	MSA	BACnet MS/TP and IP Gateway Protonode w/ Cloud	Plastic	DIN Rail	<1	UUT-02a,b
Power Supplies						
2902991	Phoenix Contact	Power Supply - 30W	Plastic	DIN Rail	<1	UUT-01a,b, UUT-02a,b
Variable Frequency Drives						
22F-D013N104	Allen-Bradley	VFD 7.5HP, 480V	Plastic	Panel Mount	11	UUT-01a,b
22F-B025N104	Allen-Bradley	VFD 7.5HP, 200-240V	Plastic	Panel Mount	11	UUT-02a,b
Miscellaneous						
TMC-V86-201-Q	Floyd Bell Inc.	Alarm Horn NEMA 4 120v 95db with #G83 Gasket	Plastic	Panel Mount	<1	UUT-01a,b, UUT-02a,b

Special Seismic Certification
Table 4 - Tested Units



DCL Project Number: 05113-2301

Manufacturer: Fulton Equipment Pacific

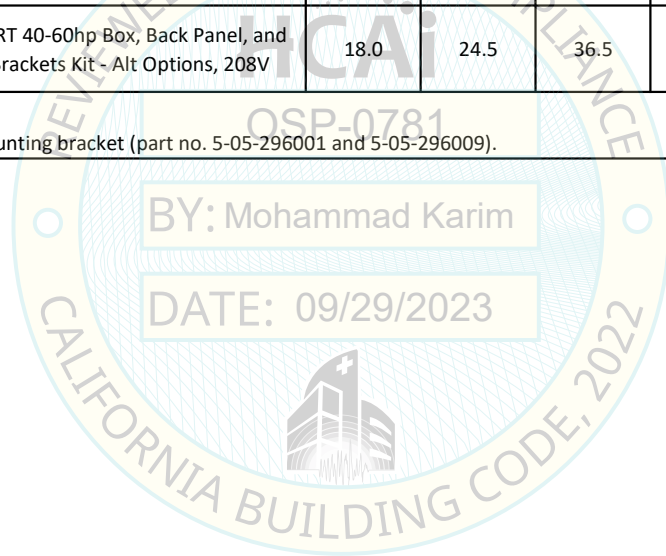
Product Type: Boiler Control Panels

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

Model Numbers	Manufacturer	Description	Max. Dimensions (in)			Max. Weight ¹ (lb.)	Mounting Configuration	Unit
			Depth ¹	Width	Height			
7-53-060800-M-0001	Fulton Equipment Pacific	VSRT 40-60hp Box, Back Panel, and Brackets Kit - Alt Options, 480V	18.0	24.5	36.5	117.8	Rigid and isolated wall mount with manufacturer-provided brackets	UUT-01a,b
7-53-060800-M-0002	Fulton Equipment Pacific	VSRT 40-60hp Box, Back Panel, and Brackets Kit - Alt Options, 208V	18.0	24.5	36.5	120.8	Rigid and isolated wall mount with manufacturer-provided brackets	UUT-02a,b

Notes:

1. Unit depth and weight include manufacturer-provided mounting bracket (part no. 5-05-296001 and 5-05-296009).



UUT-01a,b
DCL Test Report 05113-2301
UNIT UNDER TEST (UUT) Summary Sheet



DCL Project Number: 05113-2301

Manufacturer: Fulton Equipment Pacific

Product Line: VSRT

Model Number: 7-53-060800-M-0001

Product Construction Summary:

Painted Carbon Steel, NEMA 1

Options / Component Summary:

Enclosure, Displays, Controllers, Fuse Holders, Fuse Block Cover, Fuses, Switches, Relays, Power Supply, Variable Frequency Drive, Alarm

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

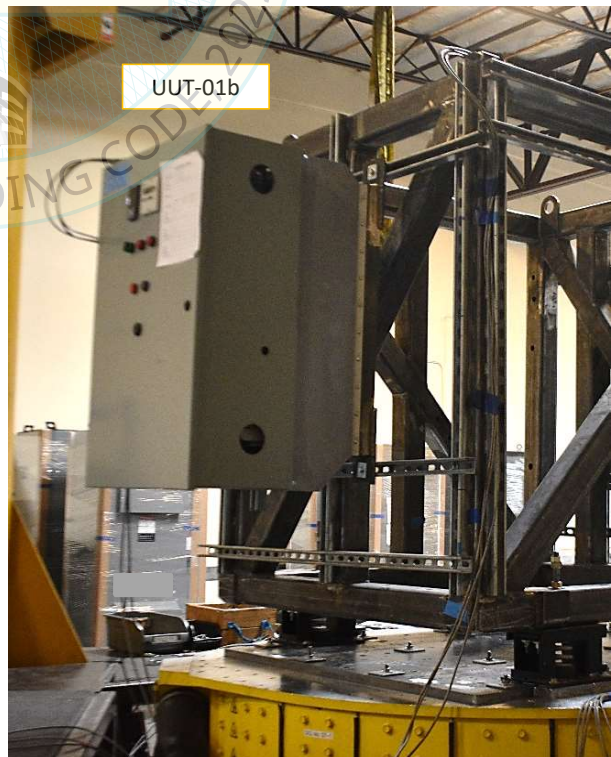
Operating Weight (lb)	Dimensions (inches)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
117.8	18.0	24.5	36.5	N/A	N/A	N/A

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 2022	ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	1.67	0.67
		2.50	0.0	1.5				

Unit Mounting Description:

The UUT enclosure was mounted to the manufacturer provided panel box brackets (part no. 5-05-296001 and 5-05-296009) using (4) 3/8" grade 5 bolts, lock washers, nuts and (8) flat washers. The panel box brackets were mounted to the wall fixture with (20) #10 bolts, (10) on each side, approximately 3 inches on center.



UUT-02a,b
DCL Test Report 05113-2301
UNIT UNDER TEST (UUT) Summary Sheet



DCL Project Number: 05113-2301

Manufacturer: Fulton Equipment Pacific

Product Line: VSRT

Model Number: 7-53-060800-M-0002

Product Construction Summary:

Painted Carbon Steel, NEMA 1

Options / Component Summary:

Enclosure, Displays, Controllers, Fuse Holders, Fuse Block Cover, Fuses, Disconnectors, Switches, Communication Protocol Translator Module, Relays, Power Supply, Variable Frequency Drive, Alarm

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
120.8	18.0	24.5	36.5	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 2022	ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	1.67	0.67
		2.50	0.0	1.5				

Unit Mounting Description:

The UUT enclosure was mounted to the manufacturer provided panel box brackets (part no. 5-05-296001 and 5-05-296009) using (4) 3/8" grade 5 bolts, lock washers, nuts and (8) flat washers. The panel box brackets were mounted to the wall fixture with (20) #10 bolts, (10) on each side, approximately 3 inches on center.

