



DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION
OFFICE OF STATEWIDE HOSPITAL PLANNING AND DEVELOPMENT

APPLICATION FOR HCAI SPECIAL SEISMIC
CERTIFICATION PREAPPROVAL (OSP)

OFFICE USE ONLY

APPLICATION #: OSP-0448

HCAI Special Seismic Certification Preapproval (OSP)

Type: ☐ New ☒ Renewal

Manufacturer Information

Manufacturer: Parker Boiler Co.

Manufacturer's Technical Representative: Greg Danenhauer

Mailing Address: 5930 Bandini Blvd., Los Angeles, CA 90040

Telephone: (323) 271-8109

Email: gdanenhauer@parkerboiler.com

Product Information

Product Name: Custom Boiler Control Panels

Product Model Number(s): 911 – Seismic Compliant Panel (See Product Matrices for certified sizes)

Product Category: Industrial Control Panels

Product Sub-Category: Boiler Control Panels

General Description: Custom boiler control panel in carbon steel enclosure with various internal components.

Mounting Description: Wall mounted - rigid on rigid or flexibly supported walls

Tested Seismic Enhancements: None

Applicant Information

Applicant Company Name: TRU Compliance, by Structural Integrity Associates

Contact Person: Victoria Ahrens

Mailing Address: 5215 Hellyer Ave Suite 210, San Jose, CA 95138

Telephone: (541) 292-5820

Email: vahrens@structint.com

Title: Certification Engineer



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

Company Name: STRUCTURAL INTEGRITY ASSOCIATES, INC.

Name: LACHEZAR HANDZHIYSKI

California License Number: S6515

Mailing Address: 5215 Hellyer Avenue, Suite 210, San Jose, CA 95138

Telephone: (669) 437-0200

Email: Lhandzhiyski@StructInt.com

Certification Method

☐ GR-63-Core

☒ ICC-ES AC156

☐ IEEE 344

☐ IEEE 693

☐ NEBS 3

☐ Other (Please Specify): _____

Testing Laboratory

Company Name: ELEMENT (ELMT)

Contact Person: Ratish Rao

Mailing Address: 1536 East Valencia Drive, Fullerton CA 92831

Telephone: (714) 879-6110

Email: ratish.rao@element.com

BY: Mohammad Karim

DATE: 12/19/2025



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Seismic Parameters

Design Basis of Equipment or Components (F_p/W_p) = [1.50 (SDS = 2.0g @ z/h=1); 1.44 (SDS = 3.2g @ z/h=0)] Rigid;
[4.50 (SDS = 2.0g @ z/h=1); 2.40 (SDS = 3.2g @ z/h=0)] Isolated

SDS (Design spectral response acceleration at short period, g) = 2.0 (z/h = 1.0); 3.2 (z/h = 0.0)

a_p (Amplification factor) = 2.5

R_p (Response modification factor) = 6.0 (Rigid); 2.0 (Spring Isolators)

Ω_0 (System overstrength factor) = 2.0

I_p (Importance factor) = 1.5

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

Natural frequencies (Hz) = See Attachment

Overall dimensions and weight = See Attachment

HCAI Approval (For Office Use Only) - Approval Expires on 12/19/2031

Date: 12/19/2025

Name: Mohammad Karim Title: Supervisor, Health Facilities

Special Seismic Certification Valid Up to: SDS (g) = 2.0 z/h = 1

Condition of Approval (if applicable): BY: Mohammad Karim

DATE: 12/19/2025

1801233-CR-001-R2



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SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENT MATRIX

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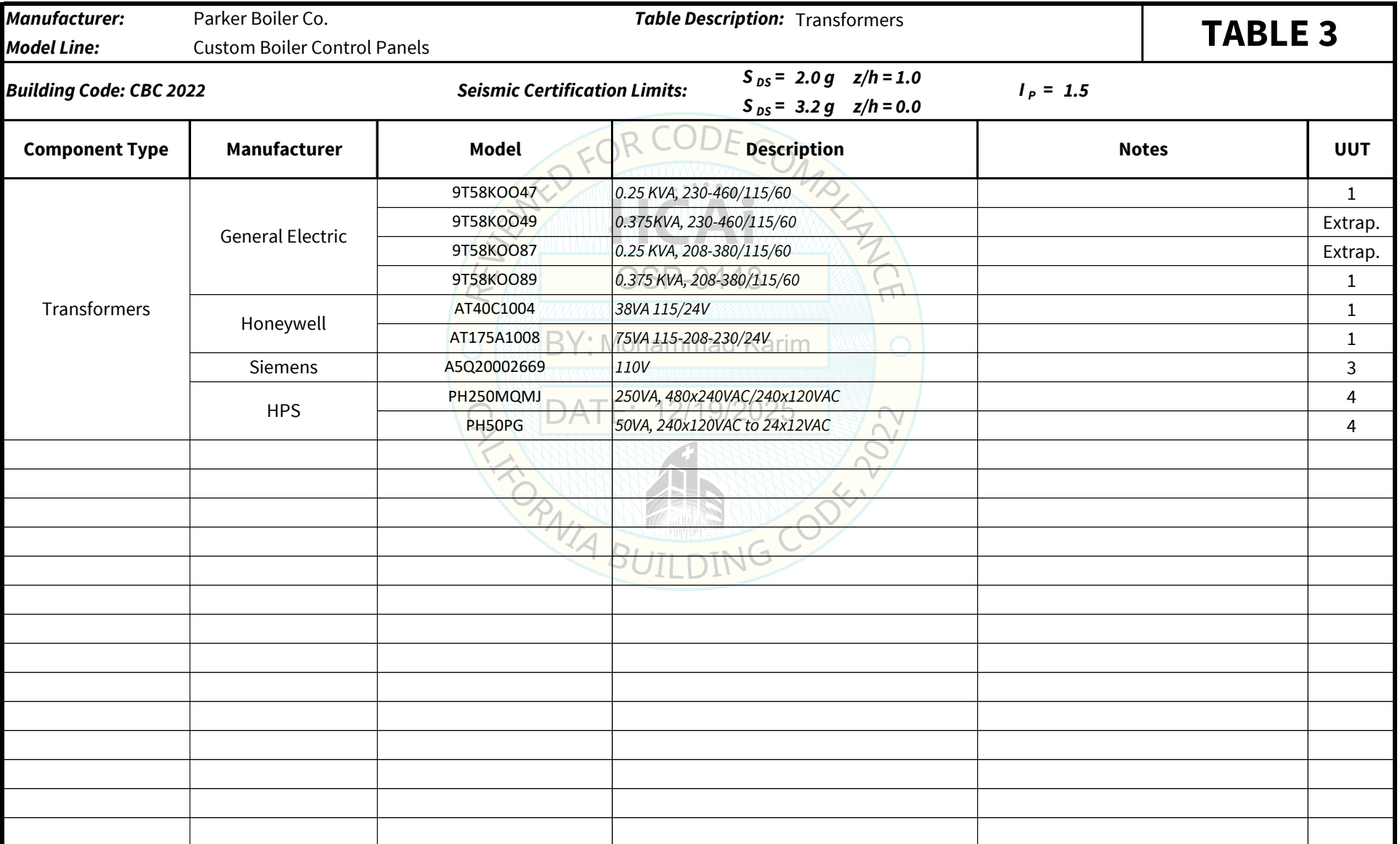


Manufacturer: Parker Boiler Co.		Table Description: Enclosures					TABLE 2	
Model Line: Custom Boiler Control Panels								
Building Code: CBC 2022		Seismic Certification Limits: $S_{DS} = 2.0\text{ g}$ $z/h = 1.0$ $S_{DS} = 3.2\text{ g}$ $z/h = 0.0$					$I_p = 1.5$	
Model Line (Manufacturer)	Model	Dimension (in)			Weight (lbs.)	Material	Notes	UUT
		Depth	Width	Height				
Enclosure (Saginaw)	SCE-16EL1606LP	6.0	16.0	16.0	24	Carbon Steel		Extrap.
	SCE-24EL2408LP	8.0	24.0	24.0	48	Carbon Steel		3
	SCE-30EL2408LP	8.0	30.0	24.0	55	Carbon Steel		Interp.
	SCE-30EL3008LP	8.0	30.0	30.0	74	Carbon Steel		4
Enclosure (Wiegmann)	N412161606C	6.0	16.0	16.0	26	Carbon Steel		Extrap.
	N412242408C	9.8	24.0	26.5	53	Carbon Steel		Extrap.
	N412302408C	8.0	24.0	30.0	56	Carbon Steel		2
	N412303012C	12.0	30.0	30.0	89	Carbon Steel		1
Panel (Saginaw)	SCE-16P16		13.0	13.0	6	Carbon Steel		Extrap.
	SCE-24P24		24.0	24.0	17	Carbon Steel		3
	SCE-30P24		30.0	24.0	22	Carbon Steel		Interp.
	SCE-30P30		30.0	30.0	28	Carbon Steel		4
Panel (Wiegmann)	NP1616C		16.0	16.0	5	Carbon Steel		Extrap.
	NP2424C		24.0	24.0	16	Carbon Steel		Extrap.
	NP3024C		24.0	30.0	20	Carbon Steel		2
	NP3030C		30.0	30.0	24	Carbon Steel		1

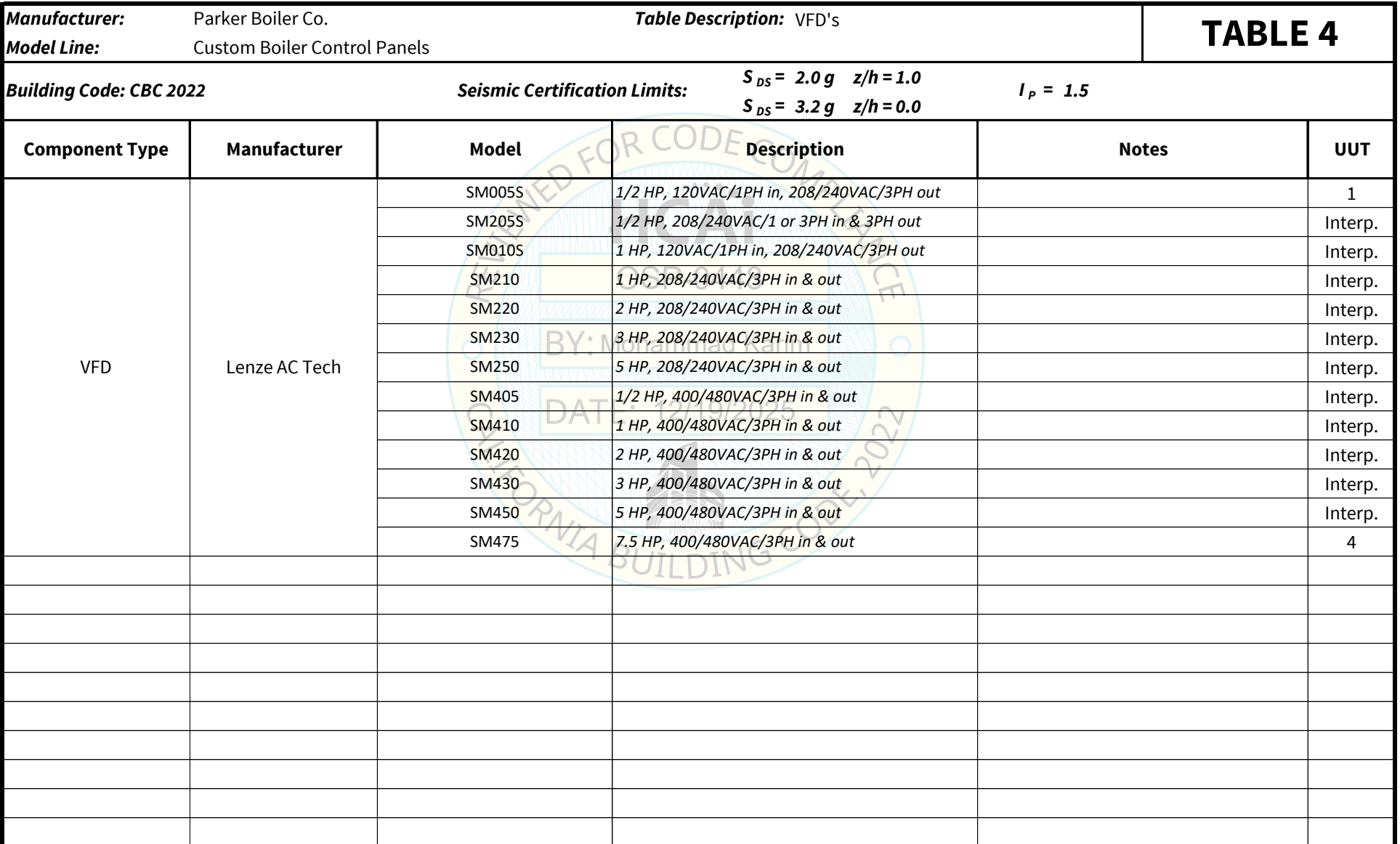
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SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENT MATRIX

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Manufacturer: Parker Boiler Co.		Table Description: VFD's			TABLE 4
Model Line: Custom Boiler Control Panels					
Building Code: CBC 2022		Seismic Certification Limits:		$S_{DS} = 2.0\text{ g}$ $z/h = 1.0$ $S_{DS} = 3.2\text{ g}$ $z/h = 0.0$	$I_p = 1.5$
Component Type	Manufacturer	Model	Description	Notes	UUT
VFD	Lenze AC Tech	ESV371N01SXB	1/2 HP, 120VAC/1PH in, 208/240VAC/3PH out		1
		ESV371N02YXB	1/2 HP, 208/240VAC/1 or 3PH in & 3PH out		Interp.
		ESV751N01SXB	1 HP, 120VAC/1PH in, 208/240VAC/3PH out		Interp.
		ESV751N02YXB	1 HP, 208/240VAC/3PH in & out		Interp.
		ESV152N02TXB	2 HP, 208/240VAC/3PH in & out		Interp.
		ESV222N02TXB	3 HP, 208/240VAC/3PH in & out		Interp.
		ESV402N02TXB	5 HP, 208/240VAC/3PH in & out		Interp.
		ESV371N04TXB	1/2 HP, 400/480VAC/3PH in & out		Interp.
		ESV751N04TXB	1 HP, 400/480VAC/3PH in & out		Interp.
		ESV152N04TXB	2 HP, 400/480VAC/3PH in & out		Interp.
		ESV222N04TXB	3 HP, 400/480VAC/3PH in & out		Interp.
		ESV402N04TXB	5 HP, 400/480VAC/3PH in & out		Interp.
		ESV552N04TXB	7.5 HP, 400/480VAC/3PH in & out		4

SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENT MATRIX

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Manufacturer: Parker Boiler Co.		Table Description: Electrical Components			TABLE 5
Model Line: Custom Boiler Control Panels					
Building Code: CBC 2022		Seismic Certification Limits:		$S_{DS} = 2.0\text{ g}$ $z/h = 1.0$ $S_{DS} = 3.2\text{ g}$ $z/h = 0.0$	$I_p = 1.5$
Component Type	Manufacturer	Model	Description	Notes	UUT
Circuit Breakers	Eaton	WMZS1D10	1 Pole, 10A		4
		WMZS2D02	2 Pole, 2A		4
		WMZS3D15	3 Pole, 15A		4
	Tyco Electronics	W28 X Q1A-5	5 Amp		1
Contactor	Fuji Electronics	SC-E04-110VAC	18A, 3-pole, 10HP@480V		4
		SZ-A11T	Front Mounting, 1 NO + 1 NC		4
	General Electric	MC1A	3 pole, 115V Coil	UUT: (2) installed	2
	Honeywell	DP2030B5004	DPST Contactor 30A, 115V		1
	Siemens	3RT1026-1AK60	120VAC Coil, 25A, 3-Pole		3
		3RT1015-1AK61	120VAC Coil, 7A, 3-Pole		3
		3RH1921-1DA11	Auxilliary Switch Block		3
		3RB2026-1QB0	Overload, 6-25A		3
		3RB2016-1PB0	Overload, 1-4A		3
Fuses	Buss	HPG	13/32x1.5", Fuse Holder	UUT: (2) installed	2
	Littelfuse	FLM-3	13/32x1.5" 500V 3A		2
		FLQ-1.5	13/32x1.5" 500V 1.5A		2

SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENT MATRIX

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Manufacturer: Parker Boiler Co.		Table Description: Electrical Components			TABLE 5
Model Line: Custom Boiler Control Panels					
Building Code: CBC 2022		Seismic Certification Limits:		$S_{DS} = 2.0\text{ g}$ $z/h = 1.0$ $S_{DS} = 3.2\text{ g}$ $z/h = 0.0$	$I_p = 1.5$
Component Type	Manufacturer	Model	Description	Notes	UUT
Relays	AMF Potter-Brumfield	KRPA-11AN-120	8 pin Plug-in Relay DPDT 115V Coil		2
	Automation Direct	782-2C-120A	15A DPDT Cube		4
		782-2C-SKT	Relay Socket		4
	Fuji Electronics	TK-E02-1800	FLA Range 12-18A		4
	Gems - Warrick	26B1AOZ-06	Low Water Level Relay		1
	General Electric	MTO3H	1.35-2.0 Amp		2
		MTO3K	3.0-4.7 Amp		Interp.
		MTO3L	4.0-6.3 Amp		Interp.
		MTO3N	7.5-10.5 Amp		2
	Honeywell	R8222D104	DPDT Relay 24VAC Coil		1
	Idec	SR2P-06	Socket for Plug-in Relay		2
		RV8H-L-AD110	6A SPDT 6MM 120 VAC Coil		4
		RV8H-L-D24	6A SPDT 6MM 24 VDC Coil		4
		RH2B-ULAC120	120VAC , DPDT, 10A		2
		SH2B-05	Socket Relay, 8-Blade, 10A		2
	SSAC	ERDM425	0.3-30 sec. 115V 10A		2
		ERDM427	0.1-5 min. 115V 10A	Similar to ERDM425, only varies in timing	Interp.
		KRDB424	1-100 min. 115V 10A		1

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Manufacturer: Parker Boiler Co.		Table Description: Electrical Components			TABLE 5
Model Line: Custom Boiler Control Panels					
Building Code: CBC 2022		Seismic Certification Limits:		$S_{DS} = 2.0\text{ g}$ $z/h = 1.0$ $S_{DS} = 3.2\text{ g}$ $z/h = 0.0$	$I_p = 1.5$
Component Type	Manufacturer	Model	Description	Notes	UUT
Switches	Automation Direct	ECX1040-2	Replacement Contact, N.O.	Same as contact in GCX3300 & GCX3320-22	Interp.
		GCX3100-SC	Pushbutton w/o Contact, IP65		4
		GCX3300	2 Pos. 1-N.O. MNTND IP65		4
		GCX3320-22	2 N.O./2 N.C. MNTND 3-Pos. knob		4
		GCX3252-120L	2 Pos. 1-N.O. MNTND Grn LED 120V		4
		GCX3262-120L	3 Pos. 2 N.O.-2 N.C. MNTND Grn LED		4
	Carling	IM254-73	4PDT Toggle		1
		2GM54-73	DPDT Toggle		2
	Del City	7300013	DPST Toggle		1
	Eaton	8411K10	N.C. Push Button - Black		2
		8411K13	N.O. Push Button - Red		1
	Mersen	SCV60	60A UL98		4
		HGPR4L	NEMA 4, 4X, Red/yellow Handle		4
		SG320-10	Rod Assembly 320mm		4
	Terminals	Cooper Bussmann	KT3-WH	3-pole, 40A, 600V	
KAD			End Mount Adapter		1
DINnector		DN-G10-10	Terminal Block, Ground	UUT: (2) installed	4
		DN-T12-A	Terminal Block, Gray	UUT: (25) installed	4
		DN-EB35MN	Terminal Block, End Bracket	UUT: (12) installed	4
		DN-LAB	Terminal Block, Markers		4
		DN-2J2Y	Terminal Block, Jumpers		4
Siemens		AGG3.131	LMV3 Terminal Connector PLYG Set		3

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SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENT MATRIX

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Manufacturer: Parker Boiler Co.		Table Description: Controllers			TABLE 6
Model Line: Custom Boiler Control Panels					
Building Code: CBC 2022		Seismic Certification Limits:		$S_{DS} = 2.0 g \quad z/h = 1.0$ $S_{DS} = 3.2 g \quad z/h = 0.0$	$I_P = 1.5$
Component Type	Manufacturer	Model	Description	Notes	UUT
Controllers	Fireye	MEC120D-B	FS Chassis & cover		2
		MEP100-B	Programmer, relight op., 10sec. PTFI		2
		MEP230	Programmer, selectable purge timing (7, 30, 60, 90 sec.)	Same as MEP100-B, only varies in software	Interp.
		MEP560-B	Programmer, dip switches to select purge timing (7, 30, 60, 90 sec.)		2
		MERT4-B	Flame rod / Photocell amplifier, rectifier, 4 second max FFRT		2
		MEUV1	UV amplifier, 0.8 second max FFRT		2
		MEUV4	UV amplifier, 4 second max FFRT	Same as MEUV1, only varies in software	Interp.
		ED510UG	Top display kit & ED510 for Micro M		2
		61-3060-B	Sub-base for Fireye M series		2
	Gems - Warrick	DFL1AOZ-04-04-06	Dual level control, 10K, 6sec. Time delay LLCO		2
		DFL1AOZ-04-04-15	Dual level control, 10K, 15sec. Time delay LLCO		1
		DFM1AOZ-04-04-06	Dual level control, 26K, 6sec. Time delay LLCO		1
	Honeywell	RM7840L1018	120V, Interrupted pilot, LHL-LF & HF proven	Same as RM7890A1056, only varies in software	Extrap.
		RM7840L1075	120V, Intermittent pilot, w/ VPS, LHL-LF & HF proven	Same as RM7890A1056, only varies in software	Extrap.
		RM7890A1015	120V, Intermittent pilot	Same as RM7890A1056, only varies in software	Extrap.
		RM7890A1056	120V, Intermittent pilot, w/ VPS		2
		RM7895A1014	120V, Intermittent pilot, pre-purge	Same as RM7890A1056, only varies in software	Interp.
		RM7895C1012	120V, Interrupted pilot, pre-purge	Same as RM7890A1056, only varies in software	Interp.
		RM7897A1002	120V, Selectable pilot, w/ shutter control, pre & programmable post purge	Same as RM7890A1056, only varies in software	Interp.

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SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENT MATRIX

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Manufacturer: Parker Boiler Co.		Table Description: Controllers			TABLE 6
Model Line: Custom Boiler Control Panels					
Building Code: CBC 2022		Seismic Certification Limits:		$S_{DS} = 2.0 g \quad z/h = 1.0$ $S_{DS} = 3.2 g \quad z/h = 0.0$	$I_p = 1.5$
Component Type	Manufacturer	Model	Description	Notes	UUT
Controllers	Honeywell	RM7897C1000	120V, Selectable pilot, w/ shutter control		2
		R7847A1025	Flame amplifier, rectifier - 0.8-1.0 sec. FFRT		2
		R7847A1033	Flame amplifier, rectifier - 2-3 sec. FFRT		2
		R7847B1023	Flame amplifier, ampli-check rectifier - 0.8-1.0 sec. FFRT	Same as R7847A1025, only varies in software	Interp.
		R7849A1023	Flame amplifier, UV - 2-3 sec. FFRT	Same as R7847A1025, only varies in software	Interp.
		R7910A1019	SOLA hydronic control, 120VAC		1
		R7911A1026	SOLA Steam control, 120VAC		1
		Q7800B1003	Metal base for 7800 series modules		2
		ST7800A1013	Prepurge timing card, 7 sec.		2
		ST7800A1039	Prepurge timing card, 30 sec.		Interp.
		ST7800A1054	Prepurge timing card, 60 sec.		Interp.
		ST7800A1062	Prepurge timing card, 90 sec.		2
		T775U2006	Universal temp control, 2-SPDT		2
		T775A2009	Remote temp control, 1-SPDT		Interp.
		T775B2032	Remote temp control, 2-SPDT		Interp.
		T775M2048	Modulating temp control, 2-SPDT		2
	Siemens	LMV36.520A1	115V, Dual fuel control unit		3
		RWF55.50A9	Universal controller 100-240VAC		3
		OCI412.10	Modbus module for LMV		3

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SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENT MATRIX

1801233-CR-001-R2



Manufacturer: Parker Boiler Co.		Table Description: Miscellaneous			TABLE 7
Model Line: Custom Boiler Control Panels					
Building Code: CBC 2022		Seismic Certification Limits:		$S_{DS} = 2.0 g \quad z/h = 1.0$ $S_{DS} = 3.2 g \quad z/h = 0.0$	$I_p = 1.5$
Component Type	Manufacturer	Model	Description	Notes	UUT
Alarm	Jenkins	1005	4.25" Bell, 115VAC		2
	Wheelock	31T-115-S	4x4" Horn, 115VAC		2
	Floyd Bell	TMC-V86-201-Q	Alarm buzzer - Volume control		4
Displays	Honeywell	S7800A1142	Keyboard display module		2
		S7999D1006	Touchscreen display, for SOLA		1
	Schneider Electric	TS-6XS-KT	6" Touch screen		3
	Siemens	AZL23.00A9	Programming display unit		3
Hour Meter	Hobbs	20017-14	A.C. hour meter 115V		2
Indicator Lights	Sorenson	3039-3-23-38640	Indicator light - grn - 24V		2
		3050-3-12-38620	Indicator light - 1/2" 115V		2
	Idec	HW4P-24V	Pilot light, 24V LED		4
Motor Starter & Heater	General Electric	CR306B002	Open starter size 0, 115V coil		3
		CR306C002	Open starter size 1, 115V coil		3
		CR123C6.30A	Heater for CR306		3
Power Supply	Idec	PS5R-A24	24VDC 7.5W / 120VAC input		1, 3
	Rhino	PSB24-060-P	24VDC 60W		4

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UNIT UNDER TEST (UUT) SUMMARY SHEET

1801233-CR-001-R2



Manufacturer: Parker Boiler Co.

Model Line: Custom Boiler Control Panels

UUT	Unit Description (mounting)	Report Number (UUT#)	Testing Lab	Tested	ISO 17025 Accredited?	S _{DS}	z/h	I _p
1a	Custom Panel (12"Dx30"Wx30"H) (wall mounted - rigid)	PR039503 Rev.1 (Panel #1)	Element - Fullerton (previously NTS)	2-Sept. 2015	Yes	2.0 3.2	1.0 0.0	1.5
1b	Custom Panel (12"Dx30"Wx30"H) (wall mounted - isolated)	PR039503 Rev.1 (Panel #1)	Element - Fullerton (previously NTS)	3-Sept. 2015	Yes	2.0 3.2	1.0 0.0	1.5
2a	Custom Panel (8"Dx24"Wx30"H) (wall mounted - rigid)	PR039503 Rev.1 (Panel #2)	Element - Fullerton (previously NTS)	2-Sept. 2015	Yes	2.0 3.2	1.0 0.0	1.5
2b	Custom Panel (8"Dx24"Wx30"H) (wall mounted - isolated)	PR039503 Rev.1 (Panel #2)	Element - Fullerton (previously NTS)	3-Sept. 2015	Yes	2.0 3.2	1.0 0.0	1.5
3a	Custom Panel (8"Dx24"Wx24"H) (wall mounted - rigid)	PR039503 Rev.1 (Panel #3)	Element - Fullerton (previously NTS)	2-Sept. 2015	Yes	2.0 3.2	1.0 0.0	1.5
3b	Custom Panel (8"Dx24"Wx24"H) (wall mounted - isolated)	PR039503 Rev.1 (Panel #3)	Element - Fullerton (previously NTS)	3-Sept. 2015	Yes	2.0 3.2	1.0 0.0	1.5
4a	Custom Panel (8"Dx30"Wx30"H) (wall mounted - rigid)	PR039503 Rev.1 (Panel #4)	Element - Fullerton (previously NTS)	2-Sept. 2015	Yes	2.0 3.2	1.0 0.0	1.5
4b	Custom Panel (8"Dx30"Wx30"H) (wall mounted - isolated)	PR039503 Rev.1 (Panel #4)	Element - Fullerton (previously NTS)	3-Sept. 2015	Yes	2.0 3.2	1.0 0.0	1.5

Notes:

UNIT UNDER TEST (UUT) SUMMARY SHEET

1801233-CR-001-R2



Manufacturer:	Parker Boiler Co.	UUT 1a
Product Type:	Control Panel	
Model Line:	Custom Boiler Control Panels	
Model Number:	Custom Panel (12"Dx30"Wx30"H)	
Serial Number:	n/a	
Test Report: PR039503 Rev.1 (Panel #1)		

UUT Properties						
Weight (lbs.)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
136	12.0	30.0	30.0	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information									
Building Code	Test Criteria	S _{ds} (g)	z/h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)	
CBC 2022	ICC-ES AC156	2.0	1.0	1.5	3.20	2.40	2.13	0.85	
		3.2	0.0						

Product Construction Summary:	Options/Subcomponent Summary:		
14ga Painted Carbon Steel Enclosure Enclosure: N412303012C (Wiegmann) Panel: NP3030C (Wiegmann)	Description	Mfr.	Part Number
	Circuit Breakers	Tyco Electronics	W28 X Q1A-5
	Contactors	Honeywell	DP2030B5004

Test Mounting Details:			
 UUT1a was wall mounted - rigid to a test fixture using four (4) 3/8" Grade 5 bolts and washers. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test. Contents were included in testing per operating conditions.	Controllers	Gems - Warrick	DFL1AOZ-04-04-15, DFM1AOZ-04-04-06
	Displays	Honeywell	R7910A1019, R7911A1026
	Power Supply	Idec	S7999D1006
	Relays	Gems - Warrick	PS5R-A24
		Honeywell	26B1AOZ-06
	Switches	Honeywell	R8222D104
		SSAC	KRDB424
		Carling	IM254-73
	Terminals	Del City	7300013
		Eaton	8411K13
	Transformers	Cooper Bussmann	KT3-WH, KAD
		General Electric	9T58K0047, 9T58K0089
	VFD	Honeywell	AT40C1004, AT175A1008
		Lenze AC Tech	SM005S, ESV371N01SXB

UNIT UNDER TEST (UUT) SUMMARY SHEET

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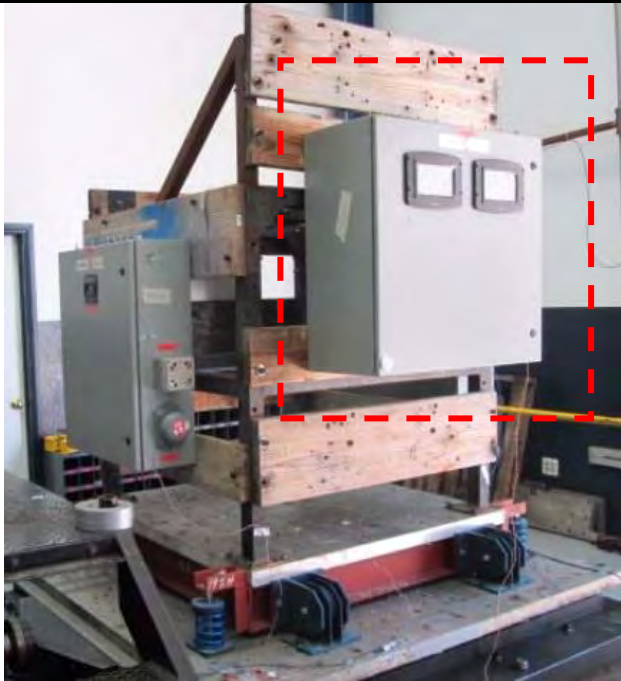


Manufacturer:	Parker Boiler Co.	UUT 1b
Product Type:	Control Panel	
Model Line:	Custom Boiler Control Panels	
Model Number:	Custom Panel (12"Dx30"Wx30"H)	
Serial Number:	n/a	
Test Report: PR039503 Rev.1 (Panel #1)		

UUT Properties						
Weight (lbs.)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
136	12.0	30.0	30.0	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information									
Building Code	Test Criteria	S _{ds} (g)	z/h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)	
CBC 2022	ICC-ES AC156	2.0	1.0	1.5	3.20	2.40	2.13	0.85	
		3.2	0.0						

Product Construction Summary:	Options/Subcomponent Summary:		
14ga Painted Carbon Steel Enclosure Enclosure: N412303012C (Wiegmann) Panel: NP3030C (Wiegmann)	Description	Mfr.	Part Number
	Circuit Breakers	Tyco Electronics	W28 X Q1A-5
	Contactors	Honeywell	DP2030B5004

Test Mounting Details:			
 UUT1b was wall mounted - rigid using four (4) 3/8" Grade 5 bolts and washers. Wall support framing was isolated from the shake table by spring isolators. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test. Contents were included in testing per operating conditions.	Controllers	Gems - Warrick	DFL1AOZ-04-04-15, DFM1AOZ-04-04-06
	Displays	Honeywell	R7910A1019, R7911A1026
	Power Supply	Idec	S7999D1006
		Gems - Warrick	PS5R-A24
	Relays	Honeywell	26B1AOZ-06
		Honeywell	R8222D104
		SSAC	KRDB424
	Switches	Carling	IM254-73
		Del City	7300013
		Eaton	8411K13
	Terminals	Cooper Bussmann	KT3-WH, KAD
	Transformers	General Electric	9T58K0047, 9T58K0089
		Honeywell	AT40C1004, AT175A1008
	VFD	Lenze AC Tech	SM005S, ESV371N01SXB

UNIT UNDER TEST (UUT) SUMMARY SHEET

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Manufacturer:	Parker Boiler Co.	UUT 2a
Product Type:	Control Panel	
Model Line:	Custom Boiler Control Panels	
Model Number:	Custom Panel (8"Dx24"Wx30"H)	
Serial Number:	n/a	Test Report: PR039503 Rev.1 (Panel #2)

UUT Properties						
Weight (lbs.)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
102	8.0	24.0	30.0	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information									
Building Code	Test Criteria	S _{ds} (g)	z/h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)	
CBC 2022	ICC-ES AC156	2.0	1.0	1.5	3.20	2.40	2.13	0.85	
		3.2	0.0						

Product Construction Summary:	Options/Subcomponent Summary:		
14ga Painted Carbon Steel Enclosure Enclosure: N412302408C (Wiegmann) Panel: NP3024C (Wiegmann)	Description	Mfr.	Part Number
	Alarm	Jenkins	1005
		Wheelock	31T-115-S

Test Mounting Details:			
 UUT2a was wall mounted - rigid to a test fixture using four (4) 3/8" Grade 5 bolts and washers. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test. Contents were included in testing per operating conditions.	Contactor	General Electric	MC1A
	Fireeye		MEC120D-B, MEP100-B, MEP560-B, MERT4-B, MEUV1, ED510UG, 61-3060-B
	Gems - Warrick		DFL1AOZ-04-04-06
	Controllers		RM7890A1056, RM7897C1000, R7847A1025, R7847A1033, Q7800B1003, ST7800A1013, ST7800A1062, T775U2006, T775M2048
	Honeywell		
	Displays	Honeywell	S7800A1142
	Fuses	Buss	HPG
		Littelfuse	FLM-3, FLQ-1.5
	Hour Meter	Hobbs	20017-14
	Indicator Lights	Sorenson	3039-3-23-38640, 3050-3-12-38620
		AMF Potter-Brumfield	KRPA-11AN-120
	Relays	General Electric	MTO3H, MTO3N
		Idec	SR2P-06, SH2B-05, RH2B-ULAC120
		SSAC	ERDM425
	Switches	Carling	2GM54-73
		Eaton	8411K10

UNIT UNDER TEST (UUT) SUMMARY SHEET

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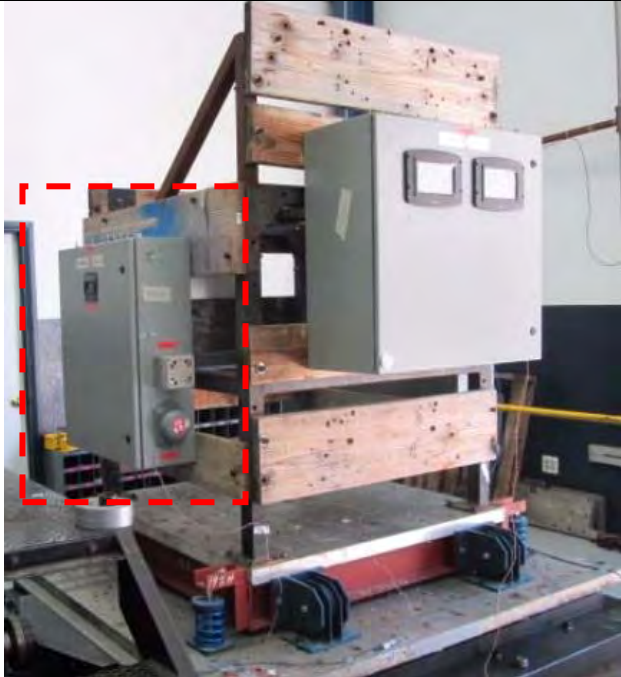


Manufacturer:	Parker Boiler Co.	UUT 2b
Product Type:	Control Panel	
Model Line:	Custom Boiler Control Panels	
Model Number:	Custom Panel (8"Dx24"Wx30"H)	
Serial Number:	n/a	Test Report: PR039503 Rev.1 (Panel #2)

UUT Properties						
Weight (lbs.)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
102	8.0	24.0	30.0	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information									
Building Code	Test Criteria	S _{ds} (g)	z/h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)	
CBC 2022	ICC-ES AC156	2.0	1.0	1.5	3.20	2.40	2.13	0.85	
		3.2	0.0						

Product Construction Summary:	Options/Subcomponent Summary:		
14ga Painted Carbon Steel Enclosure	Description	Mfr.	Part Number
Enclosure: N412302408C (Wiegmann)	Alarm	Jenkins	1005
Panel: NP3024C (Wiegmann)		Wheelock	31T-115-S

Test Mounting Details:	Options/Subcomponent Summary:		
 UUT2b was wall mounted - rigid using four (4) 3/8" Grade 5 bolts and washers. Wall support framing was isolated from the shake table by spring isolators. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test. Contents were included in testing per operating conditions.	Contactor	General Electric	MC1A
	Fireeye		MEC120D-B, MEP100-B, MEP560-B, MERT4-B, MEUV1, ED510UG, 61-3060-B
	Gems - Warrick		DFL1AOZ-04-04-06
	Controllers		RM7890A1056, RM7897C1000, R7847A1025, R7847A1033, Q7800B1003, ST7800A1013, ST7800A1062, T775U2006, T775M2048
	Honeywell		
	Displays	Honeywell	S7800A1142
	Fuses	Buss	HPG
		Littelfuse	FLM-3, FLQ-1.5
	Hour Meter	Hobbs	20017-14
	Indicator Lights	Sorenson	3039-3-23-38640, 3050-3-12-38620
	Relays	AMF Potter-Brumfield	KRPA-11AN-120
		General Electric	MTO3H, MTO3N
		Idec	SR2P-06, SH2B-05, RH2B-ULAC120
		SSAC	ERDM425
	Switches	Carling	2GM54-73
		Eaton	8411K10

UNIT UNDER TEST (UUT) SUMMARY SHEET

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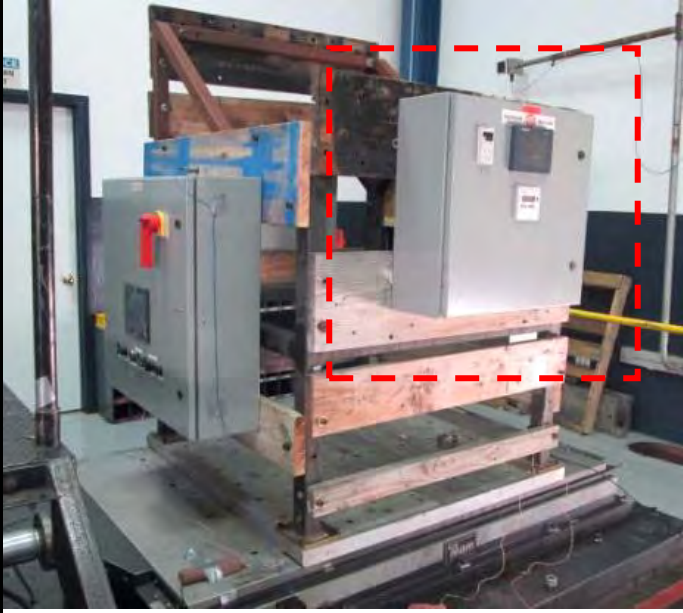


Manufacturer:	Parker Boiler Co.	UUT 3a
Product Type:	Control Panel	
Model Line:	Custom Boiler Control Panels	
Model Number:	Custom Panel (8"Dx24"Wx24"H)	
Serial Number:	n/a	Test Report: PR039503 Rev.1 (Panel #3)

UUT Properties						
Weight (lbs.)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
80	8.0	24.0	24.0	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information									
Building Code	Test Criteria	S _{ds} (g)	z/h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)	
CBC 2022	ICC-ES AC156	2.0	1.0	1.5	3.20	2.40	2.13	0.85	
		3.2	0.0						

Product Construction Summary:	Options/Subcomponent Summary:		
14ga Painted Carbon Steel Enclosure Enclosure: SCE-24EL2408LP (Saginaw) Panel: SCE-24P24 (Saginaw)	Description	Mfr.	Part Number
	Contactor	Siemens	3RT1026-1AK60, 3RT1015-1AK61, 3RH1921-1DA11, 3RB2026-1QB0, 3RB2016-1PB0

Test Mounting Details:			
	Controllers	Siemens	LMV36.520A1, RWF55.50A9, OCI412.10
	Displays	Schneider Electric	TS-6XS-KT
		Siemens	AZL23.00A9
	Motor Starter & Heater	General Electric	CR306B002, CR306C002, CR123C6.30A
	Power Supply	Idec	PS5R-A24
	Terminals	Siemens	AGG3.131
	Transformers	Siemens	A5Q20002669
UUT3a was wall mounted - rigid to a test fixture using four (4) 3/8" Grade 5 bolts and washers. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test. Contents were included in testing per operating conditions.			

UNIT UNDER TEST (UUT) SUMMARY SHEET

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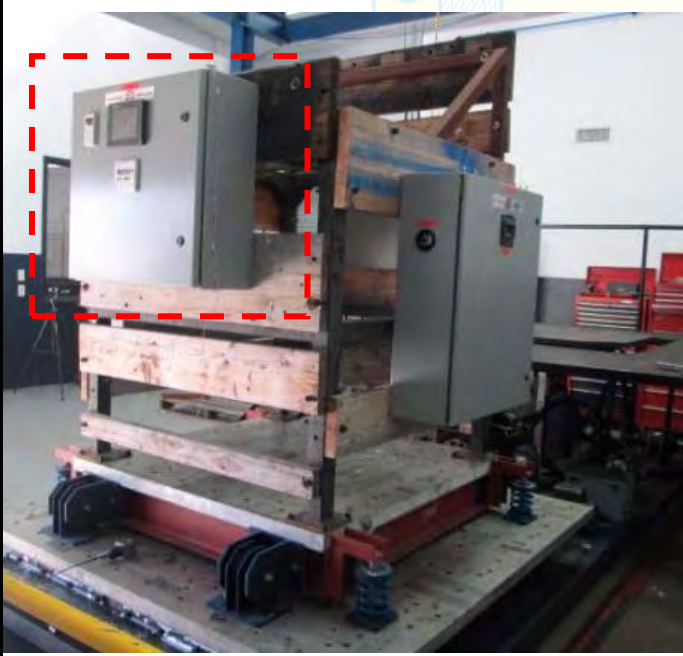


Manufacturer:	Parker Boiler Co.	UUT 3b
Product Type:	Control Panel	
Model Line:	Custom Boiler Control Panels	
Model Number:	Custom Panel (8"Dx24"Wx24"H)	
Serial Number:	n/a	
Test Report: PR039503 Rev.1 (Panel #3)		

UUT Properties						
Weight (lbs.)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
80	8.0	24.0	24.0	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information									
Building Code	Test Criteria	S _{ds} (g)	z/h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)	
CBC 2022	ICC-ES AC156	2.0	1.0	1.5	3.20	2.40	2.13	0.85	
		3.2	0.0						

Product Construction Summary:	Options/Subcomponent Summary:		
14ga Painted Carbon Steel Enclosure Enclosure: SCE-24EL2408LP (Saginaw) Panel: SCE-24P24 (Saginaw)	Description	Mfr.	Part Number
	Contactor	Siemens	3RT1026-1AK60, 3RT1015-1AK61, 3RH1921-1DA11, 3RB2026-1QB0, 3RB2016-1PB0

Test Mounting Details:			
 UUT3b was wall mounted - rigid using four (4) 3/8" Grade 5 bolts and washers. Wall support framing was isolated from the shake table by spring isolators. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test. Contents were included in testing per operating conditions.	Controllers	Siemens	LMV36.520A1, RWF55.50A9, OCI412.10
	Displays	Schneider Electric	TS-6XS-KT
		Siemens	AZL23.00A9
	Motor Starter & Heater	General Electric	CR306B002, CR306C002, CR123C6.30A
	Power Supply	Idec	PS5R-A24
	Terminals	Siemens	AGG3.131
	Transformers	Siemens	A5Q20002669

UNIT UNDER TEST (UUT) SUMMARY SHEET

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Manufacturer:	Parker Boiler Co.	UUT 4a
Product Type:	Control Panel	
Model Line:	Custom Boiler Control Panels	
Model Number:	Custom Panel (8"Dx30"Wx30"H)	
Serial Number:	n/a	Test Report: PR039503 Rev.1 (Panel #4)

UUT Properties						
Weight (lbs.)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
140	8.0	30.0	30.0	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information									
Building Code	Test Criteria	S _{ds} (g)	z/h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)	
CBC 2022	ICC-ES AC156	2.0	1.0	1.5	3.20	2.40	2.13	0.85	
		3.2	0.0						

Product Construction Summary:			Options/Subcomponent Summary:		
14ga Painted Carbon Steel Enclosure Enclosure: SCE-30EL3008LP (Saginaw) Panel: SCE-30P30 (Saginaw)			Description	Mfr.	Part Number
 UUT4a was wall mounted - rigid to a test fixture using four (4) 3/8" Grade 5 bolts and washers. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test. Contents were included in testing per operating conditions.			Alarm	Floyd Bell	TMC-V86-201-Q
			Circuit Breakers	Eaton	WMZS1D10, WMZS2D02, WMZS3D15
			Contactor	Fuji Electronics	SC-E04-110VAC, SZ-A11T
			Indicator Lights	Idec	HW4P-24V
			Power Supply	Rhino	PSB24-060-P
			Relays	Automation Direct	782-2C-120A, 782-2C-SKT
				Fuji Electronics	TK-E02-1800
				Idec	RV8H-L-AD110, RV8H-L-D24
			Switches	Automation Direct	GCX3100-SC, GCX3300, GCX3320-22, GCX3252-120L, GCX3262-120L
				Mersen	SCV60, HGPR4L, SG320-10
			Terminals	DINnector	DN-G10-10, DN-T12-A, DN-EB35MN, DN-LAB, DN-2J2Y
			Transformers	HPS	PH250MQMJ, PH50PG
			VFD	Lenze AC Tech	SM475, ESV552N04TXB

UNIT UNDER TEST (UUT) SUMMARY SHEET

1801233-CR-001-R2



Manufacturer:	Parker Boiler Co.	UUT 4b
Product Type:	Control Panel	
Model Line:	Custom Boiler Control Panels	
Model Number:	Custom Panel (8"Dx30"Wx30"H)	
Serial Number:	n/a	Test Report: PR039503 Rev.1 (Panel #4)

UUT Properties						
Weight (lbs.)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
140	8.0	30.0	30.0	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information									
Building Code	Test Criteria	S _{ds} (g)	z/h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)	
CBC 2022	ICC-ES AC156	2.0	1.0	1.5	3.20	2.40	2.13	0.85	
		3.2	0.0						

Product Construction Summary:	Options/Subcomponent Summary:		
14ga Painted Carbon Steel Enclosure	Description	Mfr.	Part Number
Enclosure: SCE-30EL3008LP (Saginaw)	Alarm	Floyd Bell	TMC-V86-201-Q
Panel: SCE-30P30 (Saginaw)	Circuit Breakers	Eaton	WMZS1D10, WMZS2D02, WMZS3D15

Test Mounting Details:			
	Contactor	Fuji Electronics	SC-E04-110VAC, SZ-A11T
	Indicator Lights	Idec	HW4P-24V
	Power Supply	Rhino	PSB24-060-P
	Relays	Automation Direct	782-2C-120A, 782-2C-SKT
		Fuji Electronics	TK-E02-1800
		Idec	RV8H-L-AD110, RV8H-L-D24
	Switches	Automation Direct	GCX3100-SC, GCX3300, GCX3320-22, GCX3252-120L, GCX3262-120L
		Mersen	SCV60, HGPR4L, SG320-10
	Terminals	DINnector	DN-G10-10, DN-T12-A, DN-EB35MN, DN-LAB, DN-2J2Y
	Transformers	HPS	PH250MQMJ, PH50PG
	VFD	Lenze AC Tech	SM475, ESV552N04TXB

UUT4b was wall mounted - rigid using four (4) 3/8" Grade 5 bolts and washers. Wall support framing was isolated from the shake table by spring isolators. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test. Contents were included in testing per operating conditions.