



**DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION
FACILITIES DEVELOPMENT DIVISION**

**APPLICATION FOR HCAI SPECIAL SEISMIC
CERTIFICATION PREAPPROVAL (OSP)**

OFFICE USE ONLY

APPLICATION #: OSP-0809

HCAI Special Seismic Certification Preapproval (OSP)

Type: New Renewal

Manufacturer Information

Manufacturer: PowerTemp Systems

Manufacturer's Technical Representative: Wade Duplessis

Mailing Address: 1646 Rankin Rd, Suite 300, Houston, TX 770734907

Telephone: (281) 286-3303

Email: wadesr@powertemp.com

Product Information

Product Name: Panelboards

Product Type: Power Distribution Units

Product Model Number: Quick Connect Tap Boxes

General Description: Wall mounted and base mounted generator quick connect tap boxes. A simple and safe means of connecting either a portable generator or a load bank to an existing generator, ATS, or utility service.

Mounting Description: Rigid, Floor/Wall Mounted

Tested Seismic Enhancements: None

Applicant Information

Applicant Company Name: Dynamic Certification Laboratories

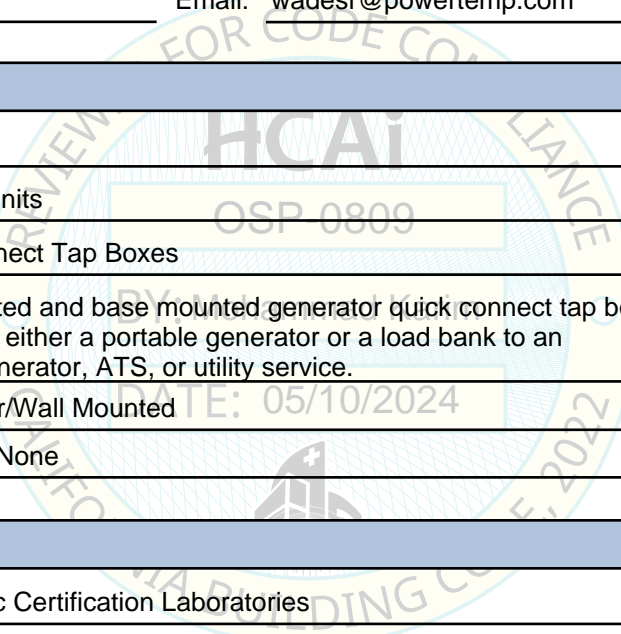
Contact Person: Kelly Laplace

Mailing Address: 1315 Greg Street Suit 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)

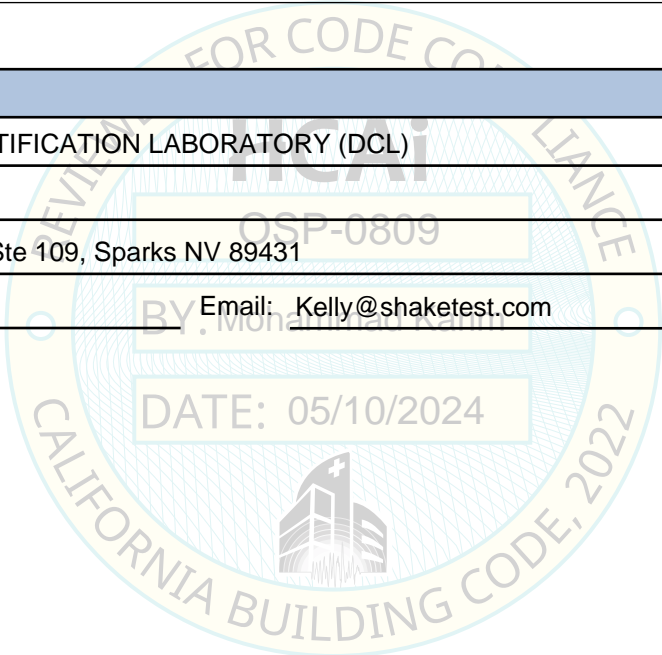
Company Name: THE VMC GROUP
Name: Kenneth Tarlow California License Number: S2851
Mailing Address: 980 9th Street, 16th Floor, Sacramento, CA 95814
Telephone: (832) 627-2214 Email: ken.tarlow@thevmcgroup.com

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=2.00, z/h=1); 1.13 (Sds=2.50, z/h=0)

SDS (Design spectral response acceleration at short period, g) = 2.0g at z/h=1.0 and 2.5g at 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

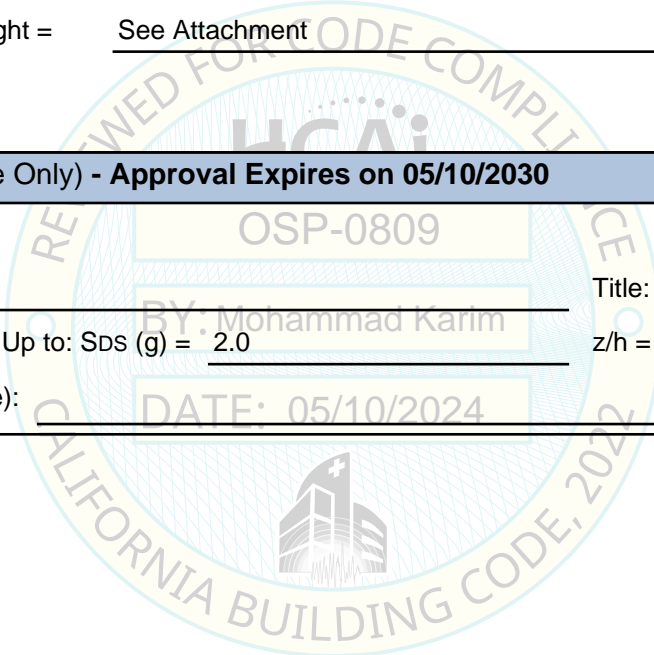
HCAI Approval (For Office Use Only) - Approval Expires on 05/10/2030

Date: 5/10/2024

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): DATE: 05/10/2024



Special Seismic Certification
Table 1 - Certified Components: Rigid Wall Mounted Units



DCL Project Numbers: 11170-2201 and 21762-2301

Manufacturer: PowerTemp

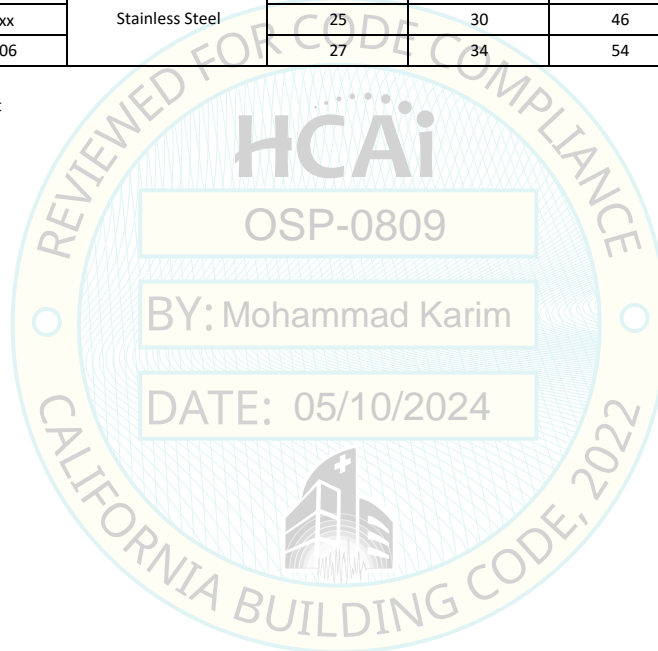
Product Type: Quick Connect Tap Box

Certified Seismic Level: $S_d=2.0g$ at $z/h=1.0$ and $S_d=2.5$ at $z/h=0$

Model Family	Model	Enclosure Material	Dimensions [in]			Weight [lbs]	Unit
			Length	Width	Height		
Basic Grade	QC-PPW-xxx	Aluminun	10	24	30	59	Extrapolated
	QC-PPW-003		11	26	43	101	UUT-03
	QC-PPW-xxx		16	26	45	175	Interpolated
	QC-PPW-xxx	Stainless Steel	10	24	30	107	Interpolated
	QC-PPW-004		11	26	43	186	UUT-04
	QC-PPW-xxx		16	26	45	292	Interpolated
Spec Grade	QC-SSW-xxx	Aluminun	20	24	36	127	Interpolated
	QC-SSW-001		28	31	51	270	UUT-01
	QC-SSW-005		27	34	54	370	UUT-05
	QC-SSW-xxx	Stainless Steel	20	24	36	238	Interpolated
	QC-SSW-xxx		25	30	46	446	Interpolated
	QC-SSW-006		27	34	54	570	UUT-06

Notes

1. Spec grade has buss kits, basic does not



Special Seismic Certification
Table 2 - Certified Components: Rigid Base Mounted Units



DCL Project Numbers: 11170-2201 and 21762-2301

Manufacturer: PowerTemp

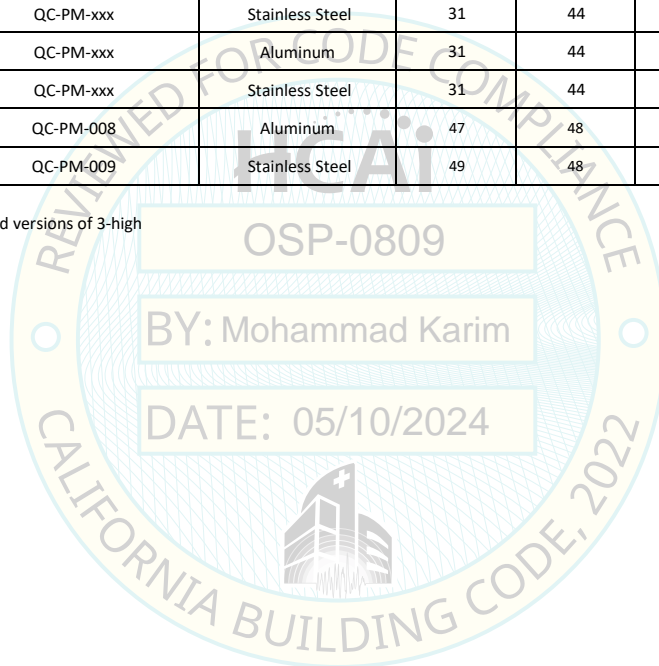
Product Type: Quick Connect Tap Box

Certified Seismic Level: $S_{ds}=2.0g$ at $z/h=1.0$ and $S_{ds}=2.5$ at $z/h=0$

Model Family	Model	Enclosure Material	Dimensions [in]			Weight [lb]	Unit
			Length	Width	Height		
1-High, 31" Wide ¹	QC-PM-xxx	Aluminum	31	44	39	282	Extrapolated
	QC-PM-xxx	Stainless Steel	31	44	39	458	Extrapolated
2-High, 31" Wide ¹	QC-PM-xxx	Aluminum	31	44	65	487	Extrapolated
	QC-PM-xxx	Stainless Steel	31	44	65	791	Extrapolated
3-High, 31" Wide	QC-PM-xxx	Aluminum	31	44	88	737	Extrapolated
	QC-PM-007	Stainless Steel	32	48	90	1120	UUT-07
1-High, 48" Wide ¹	QC-PM-xxx	Aluminum	31	44	39	502	Extrapolated
	QC-PM-xxx	Stainless Steel	31	44	39	682	Extrapolated
2-High, 48" Wide ¹	QC-PM-xxx	Aluminum	31	44	65	1,048	Extrapolated
	QC-PM-xxx	Stainless Steel	31	44	65	1,425	Extrapolated
3-High, 48" Wide	QC-PM-008	Aluminum	47	48	90	1440	UUT-08
	QC-PM-009	Stainless Steel	49	48	90	1850	UUT-09

Notes

- 1-high and 2-high represent depopulated versions of 3-high



Special Seismic Certification
Table 3 - Certified Options



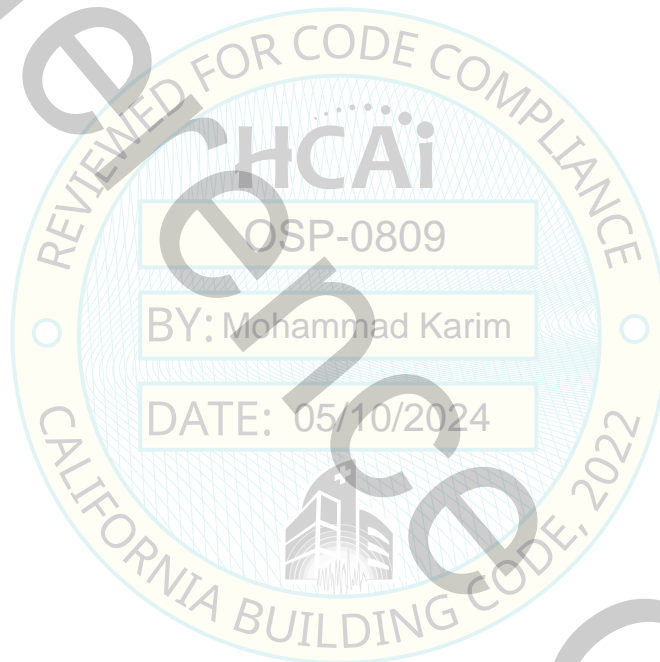
Manufacturer: PowerTemp

Product Type: Quick Connect Tap Box

Certified Seismic Level: Sds=2.0g at z/h=1.0 and Sds=2.5 at z/h=0

Sample Part Number: A-B-XXX

Variable	Allowable Value	Allowable Value Definition	Unit
A	QC	Branding, Quick Connect Tap Box	UUT-01 through UUT-09
B	PPW	Basic Grade Wall Mount	UUT-03, UUT-04
	SSW	Spec Grade Wall Mount	UUT-01, UUT-05, UUT-06
	PM	Pad Mount	UUT-07, UUT-08, UUT-09
XXX	000-999	Internally Applied Serial Number	UUT-01 through UUT-09



Only

Special Seismic Certification
Table 4 - Certified Subcomponents- Rigid Wall Mounted Units



DCL Project Numbers: 11170-2201 and 21762-2301

Product Type: Quick Connect Tap Boxes

Component	Manufacturer	Part Number	Notes	Material	Weight [lb]	Unit
Enclosures [NEMA 3RX]	PowerTemp	PTSENCQCB302410	Small Basic Wall Mount	Aluminum	35	Extrapolated
		PTSQCB422610	Medium Basic Wall Mount		72	UUT-03
		PTSQCS362420	Small Spec Grade Wall Mount		81	Interpolated
		PTSQCB422616	Large Basic Wall Mount		85	Interpolated
		PTSQCS463025	Large Spec Grade Wall Mount		128	UUT-01
		PTSQCS543425	Extra Large Spec Grade Wall Mount		150	UUT-05
		PTSENCQCB302410304	Small Basic Wall Mount	Stainless Steel	83	Interpolated
		PTSENCQCB302410316	Small Basic Wall Mount		83	Interpolated
		PTSQCB422610-304	Medium Basic Wall Mount		170	Interpolated
		PTSQCB422610-316	Medium Basic Wall Mount		171	UUT-04
		PTSQCS362420-304	Small Spec Grade Wall Mount		191	Interpolated
		PTSQCS362420-316	Small Spec Grade Wall Mount		192	Interpolated
		PTSQCB422616304	Large Basic Wall Mount		200	Interpolated
		PTSQCB422616316	Large Basic Wall Mount		202	Interpolated
		PTSQCS463025-304	Large Spec Grade Wall Mount		302	Interpolated
		PTSQCS463025-316	Large Spec Grade Wall Mount		304	Interpolated
PTSQCS543425304	Extra Large Spec Grade Wall Mount	354	Interpolated			
PTSQCS543425316	Extra Large Spec Grade Wall Mount	357	UUT-06			
Transfer Switch ¹	Socomec	SOCO 41503012	100A 3P MTS	Plastic, Copper	6	UUT-03
		SOCO 41503022	200A 3P MTS		6	Interpolated
		SOCO 41503026	260A 3P MTS		11	Interpolated
		SOCO 41503042	400A 3P MTS		11	Interpolated
		SOCO 41503060	600A 3P MTS	36	UUT-05	
		SOCO 97233010	100A 3P ATS	Plastic, Copper	8	UUT-04
		SOCO 97233020	200A 3P ATS		8	Interpolated
		SOCO 97233026	260A 3P ATS		9	Interpolated
		SOCO 97233040	400A 3P ATS		9	Interpolated
		SOCO 97233060	600A 3P ATS	43	UUT-01	
		SOCO 96A13010	100A 3P Fast Transfer ATS	Plastic, Copper	28	UUT-06
		SOCO 96A13020	200A 3P Fast Transfer ATS		28	Interpolated
SOCO 96A13026	260A 3P Fast Transfer ATS	34	Interpolated			
SOCO 96A13040	400A 3P Fast Transfer ATS	34	UUT-06			
Circuit Breaker ³	ABB	CBABBXT2NU3125	XT2 Frame 3P 125A	Plastic, Copper	3	UUT-03
		CBABBXT3NU3225	XT3 Frame 3P 225A		3	Interpolated
		CBABBXT4NU3250	XT4 Frame 3P 250A		6	Interpolated
		CBABBXT5NU3600	XT5 Frame 3P 600A		7	Interpolated
		CBABBXT6NU3800	XT6 Frame 3P 800A		27	UUT-05
		BDL36125	B Frame 3P 125A		2	UUT-04
	Square D (Alternately Branded Schneider)	HDL36150	H Frame 3P 150A	Plastic, Copper	5	Interpolated
		JDL36250	J Frame 3P 250A		5	Interpolated
	LDL36600	L Frame 3P 600A		14	Interpolated	
	MGL36800	M Frame 3P 800A		29	UUT-06	
Buss Kit	Farmers Copper	PTSBBQCS-400AKIT2	Spec-Grade Wall Mount Buss Kit	Plastic, Copper	27	Extrapolated
		PTSBBQCS-400AKIT5W-LRG	Spec-Grade Wall Mount Buss Kit		35	Extrapolated
		PTSBBQCS-800AKIT5W	Spec-Grade Wall Mount Buss Kit		40	UUT-01
		PTSBBQCSXL-1200AKIT5W	Spec-Grade Wall Mount Buss Kit		44	UUT-05, UUT-06
Subassemblies [Kits]	PowerTemp	QCP-20G	20A GFCI Receptacle w/Breaker	Plastic, Copper	<1	UUT-03
		QCP-30T	30A Twist-Lock Receptacle w/Breaker		<1	UUT-04
		QCP-50T	50A CS6369 Receptacle w/Breaker		<1	UUT-05
		QCP-BAA	Bottom Access Annunciator		<1	UUT-06
		QCP-LDR	7535 Load Dump Receptacle		<1	UUT-05
		QCP-LEDH2	LED Pilot Light		<1	UUT-04
		QCP-PRMK	Phase Rotation Monitor	<1	UUT-01	
		QCP-HTR100W	100W Heater	1	UUT-06	
		QCP-SDS	Signal Destination Switch	Carbon Steel, Plastic	<1	UUT-06
		QCP-SPD	Surge Protection Device		<1	UUT-03
		QCP-STP	SCADA Terminal Port		<1	UUT-05
		QCP-VMM	Voltmeter		<1	UUT-04

Note

- Manual transfer switch= MTS. Automatic transfer switch= ATS.
- 316 stainless steel is more resistant to corrosion, and is otherwise identical to 304 stainless steel
- All circuit breakers in wall mounted units are back mounted

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Table 5 - Certified Subcomponents - Rigid Base Mounted Units



DCL Project Numbers: 11170-2201 and 21762-2301

Product Type: Quick Connect Tap Boxes

Component	Manufacturer	Part Number	Notes	Material	Weight [lb]	Unit		
Enclosures [NEMA 3R]	PowerTemp	PTSENC3150R	Narrow Pad Mount Roof	Aluminum	25	Extrapolated		
		PTSENC4850R	Wide Pad Mount Roof		39	UUT-08		
		PTSENC314418M-QCDP	Narrow Pad Mount Mid-Section		59	Interpolated		
		PTSENC484418M-QCDP	Wide Pad Mount Mid-Section		78	Interpolated		
		PTSENC314425	Narrow Pad Mount Short Top Section		91	Interpolated		
		PTSENC484425.5-L	Wide Pad Mount Short Top Section Left Hinge ¹		100	UUT-08		
		PTSENC484425.5-R	Wide Pad Mount Short Top Section Right Hinge		100	Interpolated		
		PTSENC314433T-QCDP	Narrow Pad Mount Top Section		100	Interpolated		
		PTSENC484433T-QCDP	Wide Pad Mount Tall Top Section		120	Interpolated		
		PTSENC314437B-QCDP	Narrow Pad Mount Bottom Section		131	Interpolated		
		PTSENC484437B-QCDP	Wide Pad Mount Bottom Section		160	Interpolated		
		PTSENC484437B-QCDPRT	Wide Pad Mount Bottom Section Right Hinge		160	Interpolated		
		PTSENC484437B-2D	Wide Double Door Pad Mount Bottom Section	185	UUT-08			
		PTSENC3150R-316	Narrow Pad Mount Roof	Stainless Steel	59	UUT-07		
		PTSENC3150R-304	Narrow Pad Mount Roof		59	Interpolated		
		PTSENC4850R-304	Wide Pad Mount Roof		71	Interpolated		
		PTSENC4850R-316	Wide Pad Mount Roof		72	UUT-09		
		PTSENC314418M-304	Narrow Pad Mount Mid-Section		139	Interpolated		
		PTSENC314418M-316	Narrow Pad Mount Mid-Section		140	Interpolated		
		PTSENC484418M-304	Wide Pad Mount Mid-Section		185	Interpolated		
		PTSENC484418M-316	Wide Pad Mount Mid-Section		186	Interpolated		
		PTSENC314425-316	Narrow Pad Mount Short Top Section ¹		215	UUT-07		
		PTSENC314433T-304	Narrow Pad Mount Top Section		236	Interpolated		
		PTSENC484425.5-LT316	Wide Pad Mount Short Top Section ¹		238	UUT-09		
		PTSENC314433T-316	Narrow Pad Mount Top Section		238	Interpolated		
		PTSENC484433T-304	Wide Pad Mount Tall Top Section	282	Interpolated			
		PTSENC484433T-316	Wide Pad Mount Tall Top Section	284	Interpolated			
		PTSENC314437B-304	Narrow Pad Mount Bottom Section	309	Interpolated			
		PTSENC314437B-316	Narrow Pad Mount Bottom Section	311	UUT-07			
		PTSENC484437B-304	Wide Pad Mount Bottom Section	377	Interpolated			
		PTSENC484437B-316	Wide Pad Mount Bottom Section	379	UUT-09			
		Transfer Switch ²	Socomec	SOCO 41503080	800A 3P MTS	Plastic, Copper	47	UUT-07
				SOCO 41503120	1200A 3P MTS		57	Interpolated
SOCO 41AC3160	1600A 3P MTS			39	Interpolated			
SOCO 41AC3200	2000A 3P MTS			54	Interpolated			
SOCO 41AC3250	2500A 3P MTS			54	Interpolated			
SOCO 41AC3320	3200A 3P MTS			69	UUT-08			
SOCO 97233080	800A 3P ATS			48	UUT-07			
SOCO 97233120	1200A 3P ATS			48	Interpolated			
SOCO 95233160	1600A 3P ATS			48	Interpolated			
SOCO 95233200	2000A 3P ATS			66	Interpolated			
SOCO 95233250	2500A 3P ATS			69	Interpolated			
SOCO 95233320	3200A 3P ATS			78	UUT-09			

Note:

- Two short top sections were tested to represent the heaviest configuration of stacked enclosures.
- Manual transfer switch= MTS. Automatic transfer switch= ATS.

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Table 6 - Certified Subcomponents - Rigid Base Mounted Units (Continued)



DCL Project Numbers: 11170-2201 and 21762-2301

Product Type: Quick Connect Tap Boxes

Component	Manufacturer	Part Number	Notes	Material	Weight [lb]	Unit	
Circuit Breaker	ABB	CBABBXT1NU3125	XT1 Frame 3P 125A (Back Mount)	Plastic, Copper	2	UUT-07	
		CBABBXT2NU3100	XT2 Frame 3P 100A (Back Mount)		3	Interpolated	
		CBABBXT3NU3225	XT3 Frame 3P 225A (Back Mount)		4	Interpolated	
		CBABBXT4NU3250	XT4 Frame 3P 250A (Back Mount)		6	Interpolated	
		CBABBXT5NU3600	XT5 Frame 3P 600A (Back Mount)		8	Interpolated	
		CBABBXT6NU3800	XT6 Frame 3P 800A (Back Mount)		21	Interpolated	
		CBABBXT7SU31200	XT7 Frame 3P 1200A (Back Mount)		30	UUT-09	
		CBABBE1.2312LSIGERMSPDLK	EMax 1.2 Frame 3P 1200A (Bottom Mount)	Plastic, Copper	31	UUT-09	
		CBABBE2.2320LSIGERMSPDLK	EMax 2.2 Frame 3P 2000A (Bottom Mount)		115	Interpolated	
	CBABBE4.2332LSIGERMSPDLK	EMax 4.2 Frame 3P 3200A (Bottom Mount)	123		Interpolated		
	CBABBE6.2340LSIGERMSPDLK	EMax 6.2 Frame 3P 4000A (Bottom Mount)	240		UUT-09		
	Square D (Alternately Branded Schneider)	BDL36125	B Frame 3P 125A (Back Mount)	Plastic, Copper	2	UUT-07	
		HDL36150	H Frame 3P 150A (Back Mount)		5	Interpolated	
		JDL36250	J Frame 3P 250A (Back Mount)		5	Interpolated	
		LDL36600	L Frame 3P 600A (Back Mount)		14	Interpolated	
		MGL36800	M Frame 3P 800A (Back Mount)		29	Interpolated	
		PGL36120	P Frame 3P 1200A (Back Mount)		32	UUT-08	
		CBSQDMTZ116LSIGERMSPDLK	MTZ1 Frame 3P 1600A (Bottom Mount)	Plastic, Copper	31	UUT-08	
		CBSQDMTZ230LSIGERMSPDLK	MTZ2 Frame 3P 3000A (Bottom Mount)		110	Interpolated	
CBSQDMTZ340LSIGERMSPDLK		MTZ3 Frame 3P 4000A (Bottom Mount)	265		UUT-08		
Subassemblies [Kits]	PowerTemp	QCP-20G	20A GFCI Receptacle w/Breaker	Plastic, Copper	<1	UUT-07	
		QCP-30T	30A Twist-Lock Receptacle w/Breaker		<1	UUT-08	
		QCP-50T	50A CS6369 Receptacle w/Breaker		<1	UUT-09	
		QCP-BAA	Bottom Access Annunciator		<1	UUT-07	
		QCP-LDR	7535 Load Dump Receptacle		<1	UUT-08	
		QCP-LEDH2	LED Pilot Light		<1	UUT-09	
		QCP-PMRK	Phase Rotation Monitor		<1	UUT-07	
		QCP-RELT	Reduced Energy Let Through		<1	UUT-09	
		QCP-PS60WH2	Power Supply		3	UUT-09	
		QCP-SDS	Signal Destination Switch		<1	UUT-08	
		QCP-SPD	Surge Protection Device		<1	UUT-07	
		QCP-STP	SCADA Terminal Port		Carbon Steel, Plastic	<1	UUT-08
		QCP-VMM	Voltmeter			<1	UUT-09
		QCP-HTR500W	500W Heater			1	UUT-07

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Table 7 - Tested Units

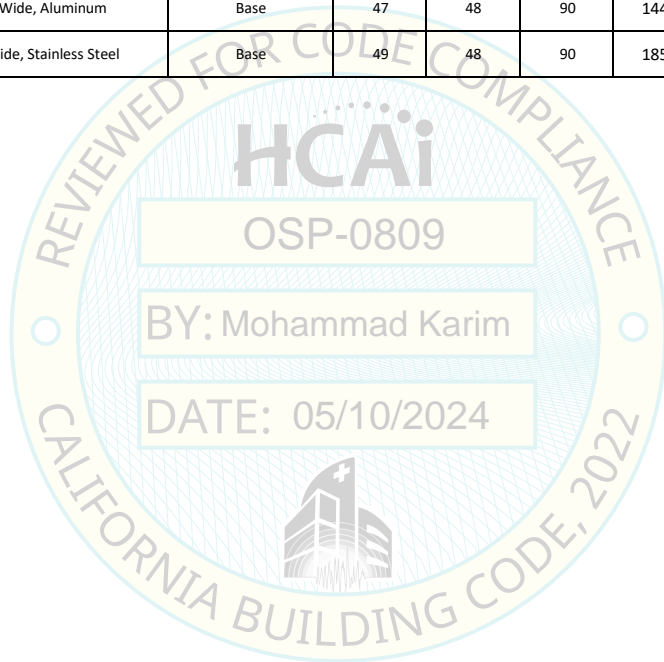


Manufacturer: PowerTemp

Product Type: Quick Connect Tap Boxes

Certified Seismic Level: Sds=2.0g at z/h=1.0 and Sds=2.5 at z/h=0

Model Number	Description	Mounting Configuration	Dimensions [in.]			Weight [lb]	DCL Report Number	Unit
			Length	Width	Height			
QC-PPW-003	Medium Size Basic Grade, Aluminum	Wall	11	26	43	101	21762-2301	UUT-03
QC-PPW-004	Medium Size Basic Grade, Stainless Steel	Wall	11	26	43	186	21762-2301	UUT-04
QC-SSW-001	Large Spec Grade, Aluminum	Wall	28	31	51	270	11170-2201	UUT-01
QC-SSW-005	Extra-Large Spec Grade, Aluminum	Wall	27	34	54	370	21762-2301	UUT-05
QC-SSW-006	Extra-Large Spec Grade, Stainless Steel	Wall	27	34	54	570	21762-2301	UUT-06
QC-PM-007	3-High, 31" Narrow, Stainless Steel	Base	32	48	90	1120	21762-2301	UUT-07
QC-PM-008	3-High, 48" Wide, Aluminum	Base	47	48	90	1440	21762-2301	UUT-08
QC-PM-009	3-High, 48" Wide, Stainless Steel	Base	49	48	90	1850	21762-2301	UUT-09



UNIT UNDER TEST (UUT) Summary Sheet



UUT-03 - DCL Test Report 21762-2301

Manufacturer: PowerTemp

Product Line: Quick Connect Tap Box

Model Number: QC-PPW-003

Product Construction Summary: Aluminum

Options / Component Summary: 100A 3-Pole transfer switch, 125A circuit breaker, aluminum enclosur, and subassemblies.

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

Tested unit	Dimensions (in)			Operating Weight (lb)	Lowest Natural Frequency (Hz)		
	Length	Width	Height		Front-Back	Side-Side	Vertical
UUT-03	11	26	43	101	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	N/A	N/A
		2.50	0.0		N/A	N/A	1.67	0.67

Unit Mounting Description:

The unit was wall mounted to the DCL wall fixture using four 3/8" Grade 5 bolts, four channel nuts, four flat washers, and four 1 3/4" by 1 3/4" by 1/4" plate washers. The 3/8" bolts were spaced 20" apart in the horizontal direction measured on-center and 42.3" apart in the vertical direction measured on-center.



Overall view of UUT-03.



Interior view of UUT-03.

UNIT UNDER TEST (UUT) Summary Sheet



UUT-04 - DCL Test Report 21762-2301

Manufacturer: PowerTemp

Product Line: Quick Connect Tap Box

Model Number: QC-PPW-004

Product Construction Summary: Stainless Steel

Options / Component Summary: 100A 3-Pole transfer switch, 125A circuit breaker, stainless steel enclosure, and subassemblies.

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

Tested unit	Dimensions (in)			Operating Weight (lb)	Lowest Natural Frequency (Hz)		
	Length	Width	Height		Front-Back	Side-Side	Vertical
UUT-04	11	26	43	186	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	N/A	N/A
		2.50	0.0		N/A	N/A	1.67	0.67

Unit Mounting Description:

The unit was wall mounted to the DCL wall fixture using four 3/8" Grade 5 bolts, four channel nuts, four flat washers, and four 1 3/4" by 1 3/4" by 1/4" plate washers. The 3/8" bolts were spaced 20" apart in the horizontal direction measured on-center and 42.3" apart in the vertical direction measured on-center.



Overall view of UUT-04.



Interior view of UUT-04.

UNIT UNDER TEST (UUT) Summary Sheet



UUT-01 - DCL Test Report 11170-2201

Manufacturer: PowerTemp

Product Line: Quick Connect Tap Box

Model Number: QC-SSW-001

Product Construction Summary: Aluminum

Options / Component Summary: 600A 3-Pole transfer switch, buss kit, aluminum enclosure, and subassemblies.

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

Tested unit	Dimensions (in)			Operating Weight (lb)	Lowest Natural Frequency (Hz)		
	Length	Width	Height		Front-Back	Side-Side	Vertical
UUT-01	28	31	51	270	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	N/A	N/A
		2.50	0.0		N/A	N/A	1.67	0.67

Unit Mounting Description:

The unit was wall-mounted to the DCL steel wall fixture with (4) 3/8" Grade 5 bolts, washers, and nuts. The bolts were spaced 48" on-center in the vertical direction and 24" on-center in the horizontal direction.



Overall view of UUT-01.



Interior view of UUT-01.

UNIT UNDER TEST (UUT) Summary Sheet



UUT-05 - DCL Test Report 21762-2301

Manufacturer: PowerTemp

Product Line: Quick Connect Tap Box

Model Number: QC-PPW-005

Product Construction Summary: Aluminum

Options / Component Summary: 600A 3-Pole transfer switch, 800A circuit breaker, aluminum enclosure, buss kit, and subassemblies.

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

Tested unit	Dimensions (in)			Operating Weight (lb)	Lowest Natural Frequency (Hz)		
	Length	Width	Height		Front-Back	Side-Side	Vertical
UUT-05	27	34	54	370	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	N/A	N/A
		2.50	0.0		N/A	N/A	1.67	0.67

Unit Mounting Description:

The unit was wall mounted to the DCL wall fixture using four 1/2" Grade 5 bolts, four channel nuts, four flat washers, and four 3" by 3" by 1/4" plate washers. The 1/2" bolts were spaced 24" apart in the horizontal direction measured on-center and 54.5" apart in the vertical direction measured on-center.



Overall view of UUT-05.



Interior view of UUT-05.

UNIT UNDER TEST (UUT) Summary Sheet



UUT-06 - DCL Test Report 21762-2301

Manufacturer: PowerTemp

Product Line: Quick Connect Tap Box

Model Number: QC-PPW-006

Product Construction Summary: Stainless Steel

Options / Component Summary: 100A and 400A 3-Pole transfer switches, 800A circuit breaker, buss kit, stainless steel enclosure, and subassemblies.

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

Tested unit	Dimensions (in)			Operating Weight (lb)	Lowest Natural Frequency (Hz)		
	Length	Width	Height		Front-Back	Side-Side	Vertical
UUT-06	27	34	54	570	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	N/A	N/A
		2.50	0.0		N/A	N/A	1.67	0.67

Unit Mounting Description:

The unit was wall mounted to the DCL wall fixture using four 1/2" Grade 5 bolts, four channel nuts, four flat washers, and four 3" by 3" by 1/4" plate washers. The 1/2" bolts were spaced 24" apart in the horizontal direction measured on-center and 54.5" apart in the Vertical direction measured on-center.



Over all view of UUT-06.



Interior view of UUT-06.

UNIT UNDER TEST (UUT) Summary Sheet



UUT-07 - DCL Test Report 21762-2301

Manufacturer: PowerTemp

Product Line: Quick Connect Tap Box

Model Number: QC-PM-007

Product Construction Summary: Stainless Steel

Options / Component Summary: Stainless steel enclosure, 800A transfer switches, 125A circuit breakers, and subassemblies

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

Tested unit	Dimensions (in)			Operating Weight (lb)	Lowest Natural Frequency (Hz)		
	Length	Width	Height		Front-Back	Side-Side	Vertical
UUT-07	32	48	90	1,120	12.0	15.0	>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 2022	ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	N/A	N/A
		2.50	0.0		N/A	N/A	1.67	0.67

Unit Mounting Description:

The unit was base mounted to the DCL interface plate using (12) 3/8" Grade 5 bolts, flat washers, and 1 1/4" by 1 5/8" by 1/4" carbon steel plate washers. The (4) bolts were spaced 10", 20" and 10" apart in the side to side direction measured on-center. The (2) bolts on one side measured 3.8" from the bolts that were in the x-direction measured on-center and were spaced 20" apart from each other in the front to back direction measured on-center. The (2) bolts on the other side measured 9.6" from the bolts that were in the side to side direction measured on-center and were spaced 10" apart from each other in the front to back direction measured on-center.



Overall view of UUT-07.



UUT-07 top section interior view.



UUT-07 middle section interior view.

UUT-07 bottom section interior view.



UNIT UNDER TEST (UUT) Summary Sheet



UUT-08 - DCL Test Report 21762-2301

Manufacturer: PowerTemp

Product Line: Quick Connect Tap Box

Model Number: QC-PM-008

Product Construction Summary: Aluminum

Options / Component Summary: Aluminum enclosure 3200A transfer switches, 1200A, 1600A, and 4000A circuit breakers, and subassemblies.

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

Tested unit	Dimensions (in)			Operating Weight (lb)	Lowest Natural Frequency (Hz)		
	Length	Width	Height		Front-Back	Side-Side	Vertical
UUT-08	47	48	90	1,440	10.0	8.0	>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 2022	ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	N/A	N/A
		2.50	0.0		N/A	N/A	1.67	0.67

Unit Mounting Description:

The unit was base mounted to the DCL interface plate using (12) 3/8" Grade 5 bolts, flat washers, and 1 1/4" by 1 5/8" by 1/4" carbon steel plate washers. The (4) bolts were spaced 10", 20" and 10" apart in the side to side direction measured on-center. The (2) bolts on either side measured 18" from the bolts that were in the front to back direction measured on-center and were spaced 10" apart from each other in the side to side measured on-center.

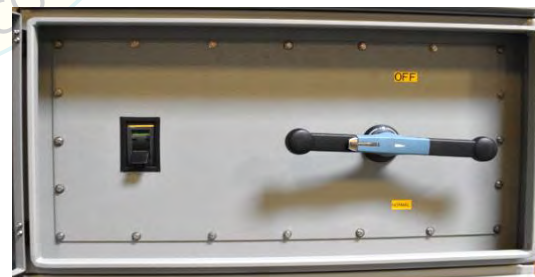


Overall view of UUT-08.



UUT-08 top section interior view.

UUT-08 middle section interior view.



UUT-08 bottom section interior view.

UNIT UNDER TEST (UUT) Summary Sheet



UUT-09 - DCL Test Report 21762-2301

Manufacturer: PowerTemp

Product Line: Quick Connect Tap Box

Model Number: QC-PM-009

Product Construction Summary: Stainless steel

Options / Component Summary: Stainless steel enclosure, 3200A transfer switches, 1200A and 4000A circuit breakers, and subassemblies.

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

Tested unit	Dimensions (in)			Operating Weight (lb)	Lowest Natural Frequency (Hz)		
	Length	Width	Height		Front-Back	Side-Side	Vertical
UUT-09	49	48	90	1850	10.5	12.5	>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 2022	ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	N/A	N/A
		2.50	0.0		N/A	N/A	1.67	0.67

Unit Mounting Description:

The unit was base mounted to the DCL interface plate using (12) 3/8" Grade 5 bolts, flat washers, and 1 1/4" by 1 5/8" by 1/4" carbon steel plate washers. The (4) bolts were spaced 14" apart in the side to side measured on-center. The (2) bolts on one side measured 17" and 18.3" from the bolts that were in the x-direction measured on-center and were spaced 11" apart from each other in the front to back measured on-center. The (2) bolts on the other side measured 18" and 18.3" from the bolts that were in the side to side measured on-center and were spaced 10" apart from each other in the front to back measured on-center.



Overall view of UUT-09.



UUT-09 interior view.