APPLICATION FOR OSHPD SPECIAL SEISMIC CERTIFICATION PREAPPROVAL (OSP)

OFFICE USE ONLY	
APPLICATION #:	OSP – 0435

OSHPD Special Seismic Certification Preapproval (OSP)

Type: ☐ New ☒ Renewal

Manufacturer Information

Manufacturer: **Controlled Power Company**

Manufacturer's Technical Representative: Paul Björngaard

Mailing Address: 1955 Stephenson Highway, Troy, MI 48083

Telephone: 248.528.3700 ext. 5292 Email: pbjorngaard@controlledpwr.com

Product Information

Product Name: **Series 700F & 700F/M Power Processors**

Product Type: Power Processor

Product Model Number: See Attachment 1
(List all unique product identification numbers and/or part numbers)

General Description: Front access power conditioning voltage regulator. Seismic enhancements made to the test units shall be incorporated into the production units.

Mounting Description: Rigid floor mounted.

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OSHPD
OSP-0435
BY: Mohammad Aliaari
DATE: 01/26/2021
CALIFORNIA BUILDING CODE, 2019

Applicant Information

Applicant Company Name: **Manwill Engineering LLC**

Contact Person: Derek Manwill, SE

Mailing Address: PO Box 1194, Bend, OR 97709

Telephone: 541.241.2102 Email: derek@manwillSE.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: Date: 1/22/2021

Title: President Company Name: **Manwill Engineering LLC**

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

Company Name: **Manwill Engineering LLC**

Name: Derek Manwill, SE California License Number: S6266

Mailing Address: PO Box 1194, Bend, OR 97709

Telephone: 541.241.2102 Email: derek@manwillSE.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):

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Testing Laboratory

Company Name: Environmental Testing Laboratory

Contact Name: Jeremy Lange

Mailing Address: 11034 Indian Trail, Dallas, TX 75229

Telephone: 972.247.9657 Email: jeremy@etldallas.com

Seismic Parameters

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

Design Basis of Equipment or Components (F_p/W_p) = 0.90

S_{DS} (Design spectral response acceleration at short period, g) = 1.25 (z/h = 1); 2.00 (z/h = 0)

a_p (In-structure equipment or component amplification factor) = 1.0

R_p (Equipment or component response modification factor) = 2.5

Ω_0 (System overstrength factor) = 2.0

I_p (Importance factor) = 1.5

z/h (Height factor ratio) = 1 (S_{DS} = 1.25); 0 (S_{DS} = 2.00)

Equipment or Component Natural Frequencies (Hz) = See Attachment 2

Overall dimensions and weight (or range thereof) = See Attachments 1 & 2

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

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List of Attachments Supporting Special Seismic Certification

☒ Test Report(s) ☐ Drawings ☐ Calculations ☒ Manufacturer's Catalog

☒ Other(s) (Please Specify): Attachments 1, 2, & 3

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

Signature: M. Aliaari Date: January 26, 2021

Print Name: Mohammad Aliaari Title: Senior Structural Engineer

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

Condition of Approval (if applicable):

ATTACHMENT 1: CERTIFIED COMPONENTS

SPECIAL SEISMIC CERTIFICATION

TABLE 1

DOCUMENT NO.: 19045CR1.1

MANUFACTURER: CONTROLLED POWER COMPANY

PRODUCT FAMILY: SERIES 700F POWER PROCESSORS

MODEL NUMBER	DIMENSIONS (in)			MAX. WT. (lb)	DESCRIPTION / NOTES	BASIS
	DEPTH	WIDTH	HEIGHT			
Series 700F & 700F/M Power Processors						
8DLX-10K-7F	24.0	29.0	59.0	562		**UUT 1**
8**X-10K-7F	24.0	29.0	59.0	610		INTERP
8**X-15K-7F	24.0	29.0	59.0	690		INTERP
8***X-10K-7F	24.0	29.0	59.0	772	10K 2nd transformer	INTERP
8***X-15K-7F	24.0	29.0	59.0	852	10K 2nd transformer	INTERP
8**X-25K-7F	24.0	29.0	59.0	890		INTERP
8**X-60K(i)-7F/M	24.0	29.0	59.0	890	Equivalent to 30K	INTERP
8**X-30K-7F	24.0	29.0	59.0	890		INTERP
8***X-25K-7F	24.0	29.0	59.0	1052	10K 2nd transformer	INTERP
8**X-75K(i)-7F/M	36.0	29.0	66.0	1176	Equivalent to 50K	INTERP
8**X-100K(i)-7F/M	36.0	29.0	66.0	1176	Equivalent to 50K	INTERP
8**X-110K(i)-7F/M	36.0	29.0	66.0	1176	Equivalent to 50K	INTERP
8**X-50K-7F	36.0	29.0	66.0	1176		INTERP
8***X-60K(i)-7F/M	24.0	29.0	59.0	1262	10K or 30K 2nd transformer	INTERP
8***X-30K-7F	24.0	29.0	59.0	1262	10K or 30K 2nd transformer	INTERP
8**X-160K(i)-7F/M	36.0	34.5	76.0	1575	Equivalent to 75K	INTERP
8**X-75K-7F	36.0	34.5	76.0	1575		INTERP
8**X-75K(i)-7F/M	36.0	29.0	66.0	1724	10K, 30K, or 50K 2nd transformer	INTERP
8***X-100K(i)-7F/M	36.0	29.0	66.0	1724	10K, 30K, or 50K 2nd transformer	INTERP
8***X-110K(i)-7F/M	36.0	29.0	66.0	1724	10K, 30K, or 50K 2nd transformer	INTERP
8***X-50K-7F	36.0	29.0	66.0	1724	10K, 30K, or 50K 2nd transformer	INTERP
8**X-210K(i)-7F/M	36.0	34.5	76.0	2014	Equivalent to 100K	INTERP
8**X-100K-7F	36.0	34.5	76.0	2014		INTERP
8***X-160K(i)-7F/M	36.0	34.5	76.0	2123	10K, 30K, or 50K 2nd transformer	INTERP
8***X-75K-7F	36.0	34.5	76.0	2123	10K, 30K, or 50K 2nd transformer	INTERP
8**X-260K(i)-7F/M	36.0	34.5	76.0	2137	Equivalent to 125K	INTERP
8**X-125K-7F	36.0	34.5	76.0	2137		INTERP
8**X-150K-7F	36.0	34.5	76.0	2240		INTERP
8***X-210K(i)-7F/M	36.0	34.5	76.0	2562	10K, 30K, or 50K 2nd transformer	INTERP
8***X-100K-7F	36.0	34.5	76.0	2562	10K, 30K, or 50K 2nd transformer	INTERP
8***X-260K(i)-7F/M	36.0	34.5	76.0	2609	10K, 30K, or 50K 2nd transformer	INTERP
8***X-125K-7F	36.0	34.5	76.0	2609	10K, 30K, or 50K 2nd transformer	INTERP
8***X-150K-7F	36.0	34.5	76.0	2609	10K, 30K, or 50K 2nd transformer	INTERP
8BLNX-150K-7F	36.0	34.5	76.0	2609	50K 2nd transformer	**UUT 2**

MOUNTING:	Rigid floor mounted.	**SEISMIC LEVELS:**	S_{DS} = 1.25g for z/h = 1 S_{DS} = 2.00g for z/h = 0 I_P = 1.5

NOTES:

Product Construction: Galvanized carbon steel frame: 14GA top; 12GA corner posts, bottom, mid panel; double 12GA base channels. 16GA painted carbon steel casing panels. Upgraded seismic construction used for UUT 2 must be used on all models.

Options/Subcomponents: Input voltage: 208V-600V, output voltage: 120/208V-347/600V. Models with three characters between '8' and 'X' have an additional output from a second transformer stacked on the main transformer. Second transformer can be 10K, 30K, or 50K, but it cannot be larger than the main transformer. Available subcomponents are listed in Table 2.

Nomenclature: See Attachment 3 for nomenclature description.

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MANUFACTURER: CONTROLLED POWER COMPANY

PRODUCT FAMILY: SERIES 700F POWER PROCESSORS

MODEL NUMBER	DIMENSIONS (in)			MAX. WT. (lb)	DESCRIPTION / NOTES	BASIS
	DEPTH	WIDTH	HEIGHT			
Controlled Power Company - Power Transformers (copper windings)						
10K				162	10kVA	**UUT 1**
15K				212	15kVA	INTERP
25K				372	25kVA	INTERP
60K(i)				372	60kVA intermittent, 30kVA equiv.	INTERP
30K				372	30kVA	INTERP
75K(i)				548	75kVA intermittent, 50kVA equiv.	INTERP
100K(i)				548	100kVA intermittent, 50kVA equiv.	INTERP
110K(i)				548	110kVA intermittent, 50kVA equiv.	INTERP
50K				548	50kVA	**UUT 2**
160K(i)				675	160kVA intermittent, 75kVA equiv.	INTERP
75K				675	75kVA	INTERP
210K(i)				983	210kVA intermittent, 100kVA equiv.	INTERP
100K				983	100kVA	INTERP
260K(i)				1119	260kVA intermittent, 125kVA equiv.	INTERP
125K				1119	125kVA	INTERP
150K				1471	150kVA	**UUT 2**
Square D - Control Transformers (copper windings)						
T250D					250VA	**UUT 1**
T500D					500VA	**UUT 2**
Square D - Circuit Breakers (copper contacts, plastic case)						
QOU-115					1-pole, 15A	**UUT 1**
QOU-120					1-pole, 20A	INTERP
QOU-125					1-pole, 25A	INTERP
QOU-130					1-pole, 30A	INTERP
QOU-135					1-pole, 35A	INTERP
QOU-140					1-pole, 40A	INTERP
QOU-145					1-pole, 45A	INTERP
QOU-150					1-pole, 50A	INTERP
QOU-160					1-pole, 60A	INTERP
QOU-170					1-pole, 70A	INTERP
QOU-180					1-pole, 80A	INTERP
QOU-190					1-pole, 90A	INTERP
QOU-1100					1-pole, 100A	INTERP
QOU-315					3-pole, 15A	INTERP
QOU-320					3-pole, 20A	INTERP
QOU-325					3-pole, 25A	INTERP
QOU-330					3-pole, 30A	INTERP
QOU-335					3-pole, 35A	INTERP
QOU-340					3-pole, 40A	INTERP
QOU-345					3-pole, 45A	INTERP
QOU-350					3-pole, 50A	INTERP
QOU-360					3-pole, 60A	INTERP

NOTES: Table continues on the next page. Additional notes, information, and seismic parameters are shown at the end of the table.

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MANUFACTURER: CONTROLLED POWER COMPANY

PRODUCT FAMILY: SERIES 700F POWER PROCESSORS

MODEL NUMBER	DIMENSIONS (in)			MAX. WT. (lb)	DESCRIPTION / NOTES	BASIS
	DEPTH	WIDTH	HEIGHT			
Square D - Circuit Breakers (copper contacts, plastic case) (continued)						
QOU-370					3-pole, 70A	INTERP
QOU-380					3-pole, 80A	INTERP
QOU-390					3-pole, 90A	INTERP
QOU-3100					3-pole, 100A	**UUT 1**
HDL36015					3-pole, 15A	**UUT 1**
HDL36020					3-pole, 20A	INTERP
HDL36025					3-pole, 25A	INTERP
HDL36030					3-pole, 30A	INTERP
HDL36035					3-pole, 35A	INTERP
HDL36040					3-pole, 40A	INTERP
HDL36045					3-pole, 45A	INTERP
HDL36050					3-pole, 50A	INTERP
HDL36060					3-pole, 60A	INTERP
HDL36070					3-pole, 70A	INTERP
HDL36080					3-pole, 80A	INTERP
HDL36090					3-pole, 90A	INTERP
HDL36100					3-pole, 100A	INTERP
HDL36110					3-pole, 110A	INTERP
HDL36125					3-pole, 125A	INTERP
HDL36150					3-pole, 150A	INTERP
JDL36175					3-pole, 175A	INTERP
JDL36200					3-pole, 200A	INTERP
JDL36225					3-pole, 225A	INTERP
JDL36250					3-pole, 250A	**UUT 1**
QBL-32150					3-pole, 150A	**UUT 2**
FAL34060					3-pole, 60A	**UUT 2**
LDL36400U31X					3-pole, 400A	**UUT 2**
LDL36600U31X					3-pole, 600A	**UUT 2**
Kraus & Naimer - Bypasses (copper contacts, plastic case)						
C42-A222-600ER					42 Amp	**UUT 1**
C80-A222-600ER					80 Amp	INTERP
C125-A222-600ER					125 Amp	INTERP
C315-A222-600ER					315 Amp	**UUT 2**
Semikron - SCR Thyristor Diode Modules (silicon chip, plastic enclosure)						
SKKT-42					42 Amp	**UUT 1**
SKKT-92					92 Amp	INTERP
SKKT-162					162 Amp	INTERP
SKKT-250					250 Amp	**UUT 2**

NOTES: Table continues on the next page. Additional notes, information, and seismic parameters are shown at the end of the table.

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PRODUCT FAMILY: SERIES 700F POWER PROCESSORS

MODEL NUMBER	DIMENSIONS (in)			MAX. WT. (lb)	DESCRIPTION / NOTES	BASIS
	DEPTH	WIDTH	HEIGHT			
Infineon - SCR Thyristor Diode Modules (silicon chip, plastic enclosure)						
TT-42					42 Amp	**UUT 1**
TT-92					92 Amp	INTERP
TT-162					162 Amp	INTERP
TT-250					250 Amp	**UUT 2**
IXYS - SCR Thyristor Diode Modules (silicon chip, plastic enclosure)						
MCC 44					44 Amp	**UUT 1**
MCC 95					95 Amp	INTERP
MCC 162					162 Amp	INTERP
MCC 250					250 Amp	**UUT 2**
Semikron - Rectifier Diode Modules (silicon chip, plastic enclosure)						
SKKD-100					100 Amp	**UUT 1**
SKKD-162					162 Amp	INTERP
SKKD-260					260 Amp	**UUT 2**
Cornell Dubilier - Output Filters (OIMP, steel case)						
SF-18uF					18uF - Capacitor	**UUT 1**
SF-30uF					30uF - Capacitor	INTERP
SF-45uF					45uF - Capacitor	INTERP
SF-50uF					50uF - Capacitor	INTERP
SF-60uF					60uF - Capacitor	**UUT 2**
Ohmite - Output Filters (ceramic)						
270-50W					50W - Resistor	**UUT 1**
270-100W					100W - Resistor	INTERP
270-225W					225W - Resistor	**UUT 2**
Multicomp - Output Filters (ceramic)						
MC-50W					50W - Resistor	**UUT 1**
MC-100W					100W - Resistor	**UUT 2**
Ronken - Output Filters (OIMP, steel case)						
SF-18uF					18uF - Capacitor	**UUT 2**
SF-30uF					30uF - Capacitor	INTERP
SF-45uF					45uF - Capacitor	INTERP
SF-50uF					50uF - Capacitor	INTERP
SF-60uF					60uF - Capacitor	**UUT 2**
Electro Industries - Digital Meters (printed circuit board, plastic enclosure)						
Shark 100					Digital display	**UUT 1**
Shark 200					Digital display, data logging	**UUT 2**
Sunon - Cooling Fan						
SP101A-1123HBT					120mm Dia., 60Hz, 20W, 0.21A	**UUT 1**
Fans-Tech - Cooling Fan						
FD120E0000					120mm Dia., 60Hz, 91W, 0.82A	**UUT 2**
Comair Rotron - Cooling Fan						
CLE2T2					10in. Dia., 60Hz, 67W, 1.0A	**UUT 1,2**

NOTES: Table continues on the next page. Additional notes, information, and seismic parameters are shown at the end of the table.

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MANUFACTURER: CONTROLLED POWER COMPANY

PRODUCT FAMILY: SERIES 700F POWER PROCESSORS

MODEL NUMBER	DIMENSIONS (in) DEPTH	WIDTH	HEIGHT	MAX. WT. (lb)	DESCRIPTION / NOTES	BASIS
Controlled Power Company - Transient Voltage Surge Suppression (printed circuit board)						
200778						**UUT 1**
200779						**UUT 2**
LEA - Surge Protection Device (plastic enclosure)						
SP 100	3.5	6.3	6.3	3		**UUT 1**
SP 200	3.5	6.3	9.5	5		**UUT 2**
Transtector - Transient Voltage Surge Suppression (plastic enclosure)						
MCP						**UUT 1**
Bussmann - Fuses (ceramic body, aluminum terminals)						
FWH-250A					500V, 250A high speed fuse	**UUT 2**
FWH-300A					500V, 300A high speed fuse	INTERP
FWH-400A					500V, 400A high speed fuse	**UUT 2**
FWX-500A					250V, 500A high speed fuse	**UUT 2**
FWX-600A					250V, 600A high speed fuse	INTERP
FWX-700A					250V, 700A high speed fuse	INTERP
FWX-800A					250V, 800A high speed fuse	**UUT 2**
Bussmann - Fuses (ceramic body, metal barrel terminals)						
FNQ-6/10					600V, 0.6A time delay fuse	**UUT 1**
SC-1					600V, 1A current limiting fuse	**UUT 1**
SC-2					600V, 2A current limiting fuse	INTERP
SC-3					600V, 3A current limiting fuse	INTERP
SC-5					600V, 5A current limiting fuse	INTERP
SC-6					600V, 6A current limiting fuse	INTERP
SC-7					600V, 7A current limiting fuse	INTERP
SC-30					600V, 30A current limiting fuse	**UUT 2**

MOUNTING:	Mounted within unit.	**SEISMIC LEVELS:**	S_{DS} = 1.25g for z/h = 1 S_{DS} = 2.00g for z/h = 0	I_P = 1.5
NOTES:	**Construction/Options:** Model number uniquely identifies manufacturer, materials, and configuration of subcomponents.			

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UUT 1

MANUFACTURER:	CONTROLLED POWER COMPANY
MODEL NUMBER:	8DLX-10K-7F
UNIT FUNCTION:	POWER PROCESSOR
SERIAL NUMBER:	N/A

DIMENSIONS (in)			WEIGHT	RES. FREQ. (Hz)		
DEPTH	**WIDTH**	**HEIGHT**	**(lb)**	**F-B**	**S-S**	**V**
24.0	29.0	59.0	562	7.6	9.4	21.0

BUILDING CODE	TEST CRITERIA	LAB REPORT NO.
2019 CBC	ICC-ES AC156	ETL R13679

S_{DS} (g)	z/h	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)
2.00	**1**	**3.20**	**2.40**	**2.14**	**0.86**
3.20	**0**				

IMPORTANCE FACTOR, I_P = 1.5

Unit was full of operating content during the shake table test. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.

MOUNTING:	Rigid floor mounted using (4) 1/2in Grade 8 bolts.
CONSTRUCTION:	Input voltage: 480V; output voltage: 120V/208V. Galvanized carbon steel frame: 14GA top; 12GA corner posts, bottom, mid panel; double 12GA base channels. 16GA painted carbon steel casing panels. Standard riveted construction.
SUBCOMPONENTS:	Controlled Power Company - power transformer (10K), Square D - control transformer (T250D), Square D - circuit breakers (QOU-115, QOU-3100, HDL36015, JDL36250), Kraus & Naimer - bypass (C42-A222-600ER), Semikron - SCR module (SKKT-42), Infineon - SCR module (TT-42), IXYS - SCR module (MCC 44), Semikron - rectifier module (SKKD-100), Cornell Dubilier - output filter (SF-18uF), Ohmite - output filter (270-50W), Multicomp - output filter (MC-50W), Electro Industries - digital meter (Shark 100), Sunon - cooling fan (SP101A-1123HBT), Comair Rotron - cooling fan (CLE2T2), Controlled Power Company - TVSS (200778), LEA - surge protection (SP 100), Transtector - TVSS (MCP), Bussmann - fuses (FNQ-6/10, SC-1)

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UUT 2

MANUFACTURER:	CONTROLLED POWER COMPANY
MODEL NUMBER:	8BLNX-150K-7F
UNIT FUNCTION:	POWER PROCESSOR
SERIAL NUMBER:	N/A

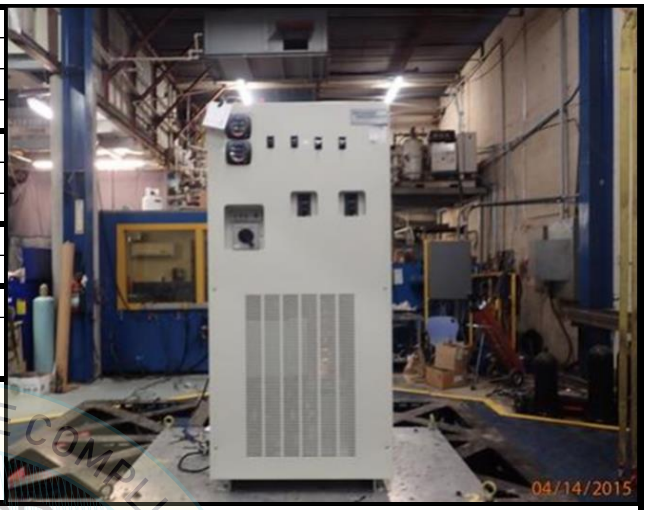
DIMENSIONS (in)			WEIGHT	RES. FREQ. (Hz)		
DEPTH	WIDTH	HEIGHT	(lb)	F-B	S-S	V
36.0	34.5	76.0	2609	5.5	5.7	20.3

BUILDING CODE	TEST CRITERIA	LAB REPORT NO.
2019 CBC	ICC-ES AC156	ETL R13679

S_{DS} (g)	z/h	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)
1.25	1	2.00	1.50	1.34	0.54
2.00	0				

IMPORTANCE FACTOR, I_P = 1.5

Unit was full of operating content during the shake table test. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.



MOUNTING:	Rigid floor mounted using (4) 1/2in Grade 8 bolts.
CONSTRUCTION:	Input voltage: 208V; output voltage: 120V/208V & 277V/480V. Galvanized carbon steel frame: 14GA top; 12GA corner posts, bottom, mid panel; double 12GA base channels. 16GA painted carbon steel casing panels. Upgraded seismic construction.
SUBCOMPONENTS:	Controlled Power Company - power transformers (50K, 150K), Square D - control transformer (T500D), Square D - circuit breakers (QBL-32150, FAL34060, LDL36400U31X, LDL36600U31X), Kraus & Naimer - bypass (C315-A222-600ER), Semikron - SCR module (SKKT-250), Infineon - SCR module (TT-250), IXYS - SCR module (MCC 250), Semikron - rectifier module (SKKD-260), Cornell Dubilier - output filter (SF-60uF), Ohmite - output filter (270-225W), Multicomp - output filter (MC-100W), Ronken - output filters (SF-18uF, SF-60uF), Electro Industries - digital meter (Shark 200), Fans-Tech - cooling fan (FD120E0000), Comair Rotron - cooling fan (CLE2T2), Controlled Power Company - TVSS (200779), LEA - surge protection (SP 200), Bussmann - fuses (FWH-250A, FWH-400A, FWX-500A, FWX-800A, SC-30)
TESTING NOTES:	Seismic enhancements were made to address anomalies observed during testing. UUT 2 was successfully re-tested after making the enhancements. The seismic enhancements are detailed below. 1. All rivets connecting the frame together were replaced with 1/4in Grade 5 bolts. 2. Standard washers were added to the screws attaching the exterior panels to the frame. 3. Three additional screws, with washers, were added to each the left and right side panels along the horizontal midline. 4. The 2.25in transformer support brackets were replaced with 3in support brackets of the same thickness. 5. The standard washers used for the transformer hardware were replaced with plate washers. 6. The standard washers used for the support channel to frame hardware were replaced with structural washers.

POWER CODE COMPLIANCE
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ATTACHMENT 3: MODEL NOMENCLATURE

SPECIAL SEISMIC CERTIFICATION

SERIES 700F POWER PROCESSORS

DOCUMENT NO.: 19045CR1.1

DIGIT:	1	2	3	4	5	6	7	8	9	10	11	12	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SAMPLE:	8	B	L	N	X	-	1	5	0	K	-	7	F	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

DIGIT	DIGIT DESCRIPTION	CODES	DEFINITIONS
1	Phase	8	Three Phase
2	Input Voltage	B	208V
		C	240V
		R	400V
		D	480V
		E	600V
3	Output Voltage of Main Transformer	L	120/208V
		S	230/400V
		N	277/480V
		P	347/600V
4	[OPTIONAL] Output Voltage of Second Transformer *If present, transformer is 10kVA, 30kVA, or 50kVA and is stacked on main transformer.*	L	120/208V
		S	230/400V
		N	277/480V
		P	347/600V
5-6	Voltage Frequency	X-	60Hz
7-11	Output kVA Rating	10K-	10kVA
		15K-	15kVA
		25K-	25kVA
		30K-	30kVA
		50k-	50kVA
		75K-	75kVA
		100K-	100kVA
		125K-	125kVA
		150K-	150kVA
12-13	Series	7F	700F Standard Rating

FOR REFERENCE ONLY
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OSHPD
OSP-0435
BY: Mohammad Aljaari
DATE: 01/26/2021
CALIFORNIA BUILDING CODE 2019

ATTACHMENT 3: MODEL NOMENCLATURE

SPECIAL SEISMIC CERTIFICATION

SERIES 700F/M POWER PROCESSORS

DOCUMENT NO.: 19045CR1.1

DIGIT:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	-	-	-	-	-	-	-	-	-	-	-
SAMPLE:	8	B	L	N	X	-	2	6	0	K	(	i	)	-	7	F	/	M	-	-	-	-	-	-	-	-	-	-	-

DIGIT	DIGIT DESCRIPTION	CODES	DEFINITIONS
1	Phase	8	Three Phase
2	Input Voltage	B	208V
		C	240V
		R	400V
		D	480V
		E	600V
3	Output Voltage of Main Transformer	L	120/208V
		S	230/400V
		N	277/480V
		P	347/600V
4	[OPTIONAL] Output Voltage of Second Transformer *If present, transformer is 10kVA, 30kVA, or 50kVA and is stacked on main transformer.*	L	120/208V
		S	230/400V
		N	277/480V
		P	347/600V
5-6	Voltage Frequency	X-	60Hz
7-14	Output kVA Intermittent Rating	60K(i)-	60kVA Intermittent; 30kVA Standard Equivalent
		75K(i)-	75kVA Intermittent; 50kVA Standard Equivalent
		100K(i)-	100kVA Intermittent; 50kVA Standard Equivalent
		110K(i)-	110kVA Intermittent; 50kVA Standard Equivalent
		160K(i)-	160kVA Intermittent; 75kVA Standard Equivalent
		210K(i)-	210kVA Intermittent; 100kVA Standard Equivalent
		260K(i)-	260kVA Intermittent; 125kVA Standard Equivalent
15-18	Series	7F/M	700F Intermittent Rating

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