OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT
FACILITIES DEVELOPMENT DIVISION

APPLICATION FOR OSHPD SPECIAL SEISMIC CERTIFICATION PREAPPROVAL (OSP)

OSHPD Special Seismic Certification Preapproval (OSP)

Type: [X] New [ ] Renewal

Manufacturer Information

Manufacturer: Honeywell Building Technologies

Manufacturer's Technical Representative: David Arneson

Mailing Address: 1985 Douglas Drive North, Golden Valley, MN 55422

Telephone: (763) 954-4525   Email: david.arneson@honeywell.com

Product Information

Product Name: Industrial Control Panels

Product Type: HVAC Control Panels

Product Model Number: See attachments

General Description: The UUTs are enclosures filled with Controllers, Sensors, Circuit Breakers, Terminals, Panel Mount Lights, Switches and Push Buttons, Relays, Transformers, Displays, Power Supplies, Power Outlets, and Network Devices.

Mounting Description: See Certified Product Tables, Wall Mounted

Tested Seismic Enhancements: None

Applicant Information
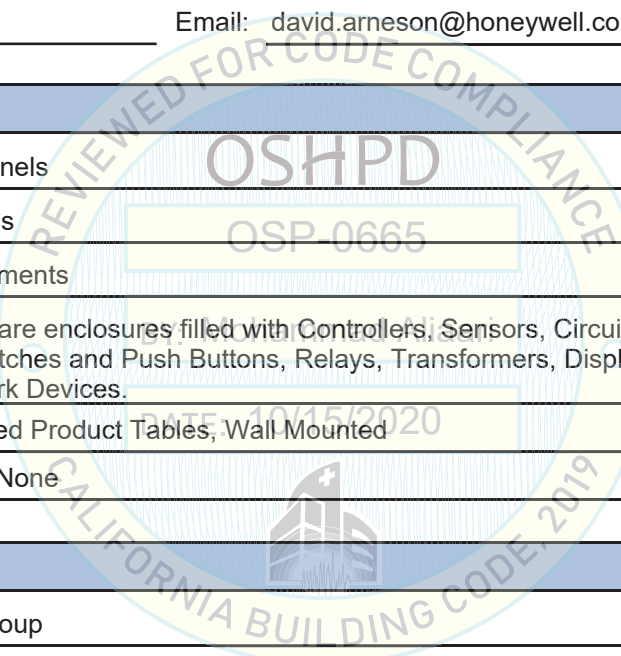
Applicant Company Name: VMC Group

Contact Person: John Giuliano

Mailing Address: 113 Main Street, Bloomingdale, NJ 07403

Telephone: (973) 838-1780   Email: john.giuliano@thevmcgroup.com

Title: President

OSHPD
OSP-0665

California Licensed Structural Engineer Responsible for the Engineering and Test Report(s)
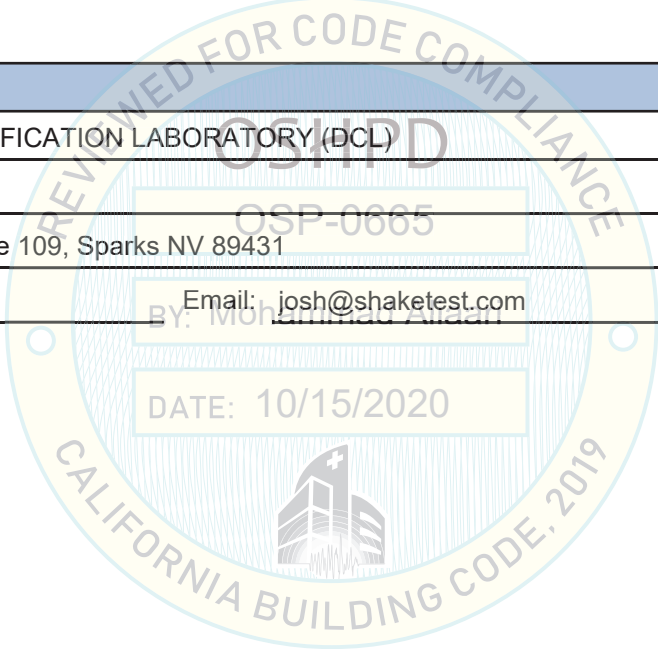
Company Name: THE VMC GROUP

Name: Kenneth Tarlow   California License Number: S2851

Mailing Address: 980 9th Street, 16th Floor, Sacramento, CA 95814

Telephone: (916) 449-9918   Email: ken.tarlow@thevmcgroup.com

Certification Method

[ ] GR-63-Core   [X] ICC-ES AC156   [ ] IEEE 344   [ ] IEEE 693   [ ] NEBS 3

[ ] Other (Please Specify):

Testing Laboratory

Company Name: DYNAMIC CERTIFICATION LABORATORY (DCL)

Contact Person: Joshua Sailer

Mailing Address: 1315 Greg St., Ste 109, Sparks NV 89431

Telephone: (775) 358-5085   Email: josh@shaketest.com

REVIEWED FOR CODE COMPLIANCE
OSHPD
OSP-0665
BY: Mohammad Allaan
DATE: 10/15/2020
CALIFORNIA BUILDING CODE, 2019

"Access to Safe, Quality Healthcare Environments that Meet California's Diverse and Dynamic Needs"

Seismic Parameters

Design Basis of Equipment or Components (F_p/W_p) =   1.5

S_{DS} (Design spectral response acceleration at short period, g) =   2.0

a_p (Amplification factor) =   2.5

R_p (Response modification factor) =   6

Ω_0 (System overstrength factor) =   2.0

I_p (Importance factor) =   1.5

z/h (Height ratio factor) =   1

Natural frequencies (Hz) =   See attachments

Overall dimensions and weight =   See attachments

OSHPD Approval (For Office Use Only) - **Approval Expires on 12/31/2025**

Date:	10/15/2020		
Name:	Mohammad Aliaari	Title:	Senior Structural Engineer
Special Seismic Certification Valid Up to: S_{DS} (g) = 2.0		z/h = 1	
Condition of Approval (if applicable):			

REVIEWED FOR CODE COMPLIANCE
OSHPD
OSP-0665
BY: Mohammad Aliaari
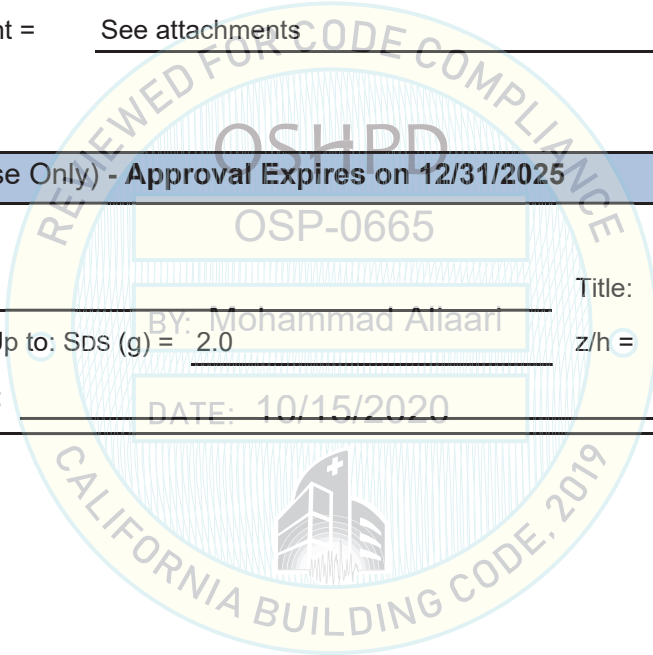DATE: 10/15/2020
CALIFORNIA BUILDING CODE, 2019

Table 1 - Certified Components

Manufacturer: Honeywell
Mounting Configuration: Rigid (a) and Isolated (b) Wall Mount
Certification Level: $S_{DS} = 2.00g$, z/h=1.0

Model Number	Description	Material	Max. Dimensions (in)			Weight (lb)	Unit
			Depth	Width	Height		
HCCP-07-16-20-CS	NEMA 1	Carbon Steel	7.0	16.0	20.0	47.0	Extrapolated
HCCP-07-20-20-CS	NEMA 1	Carbon Steel	7.0	20.0	20.0	53.0	Extrapolated
HCCP-07-16-24-CS	NEMA 1	Carbon Steel	7.0	16.0	24.0	53.0	Extrapolated
HCCP-07-20-24-CS	NEMA 1	Carbon Steel	7.0	20.0	24.0	54.5	UUT1a,b
HCCP-07-24-24-CS	NEMA 1	Carbon Steel	7.0	24.0	24.0	71.0	Interpolated
HCCP-07-20-30-CS	NEMA 1	Carbon Steel	7.0	20.0	30.0	83.0	Interpolated
HCCP-07-24-36-CS	NEMA 1	Carbon Steel	7.0	24.0	36.0	114.0	Interpolated
HCCP-09-30-30-CS	NEMA 1	Carbon Steel	9.0	30.0	30.0	135.0	Interpolated
HCCP-07-30-36-CS	NEMA 1	Carbon Steel	7.0	30.0	36.0	136.0	UUT2a,b
HCCP-08-16-20-CS	NEMA 4/12	Carbon Steel	9.0	16.0	20.0	42.0	Extrapolated
HCCP-08-20-20-CS	NEMA 4/12	Carbon Steel	9.0	20.0	20.0	47.0	Extrapolated
HCCP-08-16-24-CS	NEMA 4/12	Carbon Steel	9.0	16.0	24.0	49.0	Extrapolated
HCCP-08-20-24-CS	NEMA 4/12	Carbon Steel	9.0	20.0	24.0	65.0	Interpolated
HCCP-08-24-24-CS	NEMA 4/12	Carbon Steel	9.0	24.0	24.0	81.0	Interpolated
HCCP-08-24-30-CS	NEMA 4/12	Carbon Steel	9.0	24.0	30.0	93.0	Interpolated
HCCP-08-24-36-CS	NEMA 4/12	Carbon Steel	9.0	24.0	36.0	112.0	Interpolated
HCCP-08-30-30-CS	NEMA 4/12	Carbon Steel	9.0	30.0	30.0	116.0	Interpolated
HCCP-08-30-36-CS	NEMA 4/12	Carbon Steel	9.0	30.0	36.0	126.0	Interpolated
HCCP-08-24-42-CS	NEMA 4/12	Carbon Steel	9.0	24.0	42.0	140.0	Interpolated
HCCP-08-36-36-CS	NEMA 4/12	Carbon Steel	9.0	36.0	36.0	160.0	Interpolated
HCCP-08-30-42-CS	NEMA 4/12	Carbon Steel	9.0	30.0	42.0	160.0	Interpolated
HCCP-08-36-42-CS	NEMA 4/12	Carbon Steel	9.0	36.0	42.0	170.0	UUT3a,b
HCCP-08-16-20-SS	NEMA 4/12	Stainless Steel	8.8	16.0	20.0	43.0	Extrapolated
HCCP-08-16-24-SS	NEMA 4/12	Stainless Steel	8.8	16.0	24.0	47.0	Extrapolated
HCCP-08-20-20-SS	NEMA 4/12	Stainless Steel	8.8	20.0	20.0	49.0	Extrapolated
HCCP-08-20-24-SS	NEMA 4/12	Stainless Steel	8.8	20.0	24.0	62.0	Interpolated
HCCP-08-24-24-SS	NEMA 4/12	Stainless Steel	8.8	24.0	24.0	74.0	Interpolated
HCCP-08-24-30-SS	NEMA 4/12	Stainless Steel	8.8	24.0	30.0	100.0	Interpolated
HCCP-08-30-30-SS	NEMA 4/12	Stainless Steel	8.8	30.0	30.0	111.0	Interpolated
HCCP-08-24-36-SS	NEMA 4/12	Stainless Steel	8.8	24.0	36.0	112.0	Interpolated
HCCP-08-30-36-SS	NEMA 4/12	Stainless Steel	8.8	30.0	36.0	133.0	Interpolated
HCCP-08-36-42-SS	NEMA 4/12	Stainless Steel	8.8	36.0	42.0	172.0	UUT4a,b

Example Format: **HCCP-DD-WW-HH-XX**

Key Code	Meaning
HCCP	Honeywell Custom Control Panel
DD	2-digit depth value, inches
WW	2-digit width value, inches
HH	2-digit height value, inches.
XX	Material Code (CS=Carbon Steel, SS= Stainless Steel)

Table 2.1 - Certified Subcomponents - Enclosures

Model Number	Manufacturer Name	Description	Material	Weight (lb)	Unit
N1A20167	Hammond	20 X 16 X 7 NEMA 1	16 gauge low carbon steel	37	Extrapolated
N1A20207	Hammond	20 X 20 X 7 NEMA 1	16 gauge low carbon steel	43	Extrapolated
N1A24167	Hammond	24 X 16 X 7 NEMA 1	16 gauge low carbon steel	43	Extrapolated
N1A24207	Hammond	24 X 20 X 7 NEMA 1	16 gauge low carbon steel	51	UUT1a,b
N1A24247	Hammond	24 X 24 X 7 NEMA 1	14 gauge low carbon steel	56	Interpolated
N1A30207	Hammond	30 X 20 X 7 NEMA 1	14 gauge low carbon steel	67	Interpolated
N1A30247	Hammond	30 X 20 X 7 NEMA 1	14 gauge low carbon steel	68	Interpolated
N1A36247	Hammond	36 X 24 X 7 NEMA 1	14 gauge low carbon steel	94	Interpolated
N1A30309	Hammond	30 X 30 X 9 NEMA 1	14 gauge low carbon steel	115	Interpolated
N1A36307	Hammond	36 X 30 X 7 NEMA 1	14 gauge low carbon steel	124	UUT2a,b
EN4SD201608GY	Hammond	20 X 16 X 8 NEMA 4/12	16 gauge low carbon steel	32	Interpolated
EN4SD202008GY	Hammond	20 X 20 X 8 NEMA 4/12	16 gauge low carbon steel	37	Interpolated
EN4SD241608GY	Hammond	24 X 16 X 8 NEMA 4/12	16 gauge low carbon steel	39	Interpolated
EN4SD242008GY	Hammond	24 X 20 X 8 NEMA 4/12	16 gauge low carbon steel	50	Interpolated
EN4SD242408GY	Hammond	24 X 24 X 8 NEMA 4/12	14 gauge low carbon steel	66	Interpolated
EN4SD302408GY	Hammond	30 X 24 X 8 NEMA 4/12	14 gauge low carbon steel	78	Interpolated
EN4SD362408GY	Hammond	36 X 24 X 8 NEMA 4/12	14 gauge low carbon steel	92	Interpolated
EN4SD303008GY	Hammond	30 X 30 X 8 NEMA 4/12	14 gauge low carbon steel	96	Interpolated
EN4SD363008GY	Hammond	36 X 30 X 8 NEMA 4/12	14 gauge low carbon steel	106	Interpolated
EN4SD422408GY	Hammond	42 X 24 X 8 NEMA 4/12	14 gauge low carbon steel	115	Interpolated
EN4SD363608GY	Hammond	36 X 36 X 8 NEMA 4/12	14 gauge low carbon steel	135	Interpolated
EN4SD42308GY	Hammond	42 X 30 X 8 NEMA 4/12	14 gauge low carbon steel	135	Interpolated
EN4SD42368GY	Hammond	42 X 36 X 8 NEMA 4/12	14 gauge low carbon steel	151	UUT3a,b
EN4SD20168SS	Hammond	20 X 16 X 8 NEMA 4/12	16 gauge 304 stainless steel	33	Interpolated
EN4SD24168SS	Hammond	24 X 16 X 8 NEMA 4/12	16 gauge 304 stainless steel	37	Interpolated
EN4SD20208SS	Hammond	20 X 20 X 8 NEMA 4/12	16 gauge 304 stainless steel	39	Interpolated
EN4SD24208SS	Hammond	24 X 20 X 8 NEMA 4/12	16 gauge 304 stainless steel	47	Interpolated
EN4SD24248SS	Hammond	24 X 24 X 8 NEMA 4/12	14 gauge 304 stainless steel	59	Interpolated
EN4SD30248SS	Hammond	30 X 24 X 8 NEMA 4/12	14 gauge 304 stainless steel	80	Interpolated
EN4SD30308SS	Hammond	30 X 30 X 8 NEMA 4/12	14 gauge 304 stainless steel	91	Interpolated
EN4SD36248SS	Hammond	36 X 24 X 8 NEMA 4/12	14 gauge 304 stainless steel	92	Interpolated
EN4SD36308SS	Hammond	36 X 30 X 8 NEMA 4/12	14 gauge 304 stainless steel	108	Interpolated
EN4SD42368SS	Hammond	42 X 36 X 8 NEMA 4/12	14 gauge 304 stainless steel	155	UUT4a,b

Table 2.2 - Certified Subcomponents - Controllers

Model Number	Manufacturer Name	Description	Material	Weight (lb)	Interior Mounting Configuration	Unit
WEB-8000	Honeywell	WEB8000 Jace Controller (order WEB-8000-DEMO)	Plastic / printed circuit board	1	Direct Back Panel	UUT1a,b
IO-R-16	Honeywell	WEB8000 16 Point IO Remote Module	Plastic / printed circuit board	1	Din Rail	Extrapolated
IO-R-34	Honeywell	WEB8000 34 Point IO Remote Module	Plastic / printed circuit board	1	Din Rail	UUT1a,b
NPB-8000-2X-485	Honeywell	Dual Port Card For Jace 8000	Plastic / printed circuit board	1	Direct Back Panel	UUT1a,b
NPB-8000-LON	Honeywell	LON card for Jace 8000	Plastic / printed circuit board	1	Direct Back Panel	UUT1a,b
NPB-8000-232	Honeywell	RS232 Card For Jace 8000	Plastic / printed circuit board	1	Direct Back Panel	Interpolated
PUB1012S/U	Honeywell	Spyder Programmable Unitary Controller	Plastic / printed circuit board	1	Direct Back Panel	UUT2a,b
PUB1012S-ILC/U	Honeywell	Spyder ILC Programmable Unitary Controller	Plastic / printed circuit board	1	Direct Back Panel	Interpolated
PUB4024S/U	Honeywell	Spyder Programmable Unitary Controller	Plastic / printed circuit board	1	Direct Back Panel	Interpolated
PUB4024S-ILC/U	Honeywell	Spyder ILC Programmable Unitary Controller	Plastic / printed circuit board	1	Direct Back Panel	Interpolated
PUL1012S/U	Honeywell	Spyder Programmable Unitary Controller	Plastic / printed circuit board	1	Direct Back Panel	UUT1a,b
PUL1012S-ILC/U	Honeywell	Spyder ILC Programmable Unitary Controller	Plastic / printed circuit board	1	Direct Back Panel	Interpolated
PUL4024S/U	Honeywell	Spyder Programmable Unitary Controller	Plastic / printed circuit board	1	Direct Back Panel	Interpolated
PUL4024S-ILC/U	Honeywell	Spyder ILC Programmable Unitary Controller	Plastic / printed circuit board	1	Direct Back Panel	Interpolated
PVB4024NS/U	Honeywell	Spyder Programmable VAV Controller	Plastic / printed circuit board	1	Direct Back Panel	Interpolated
PVB4024NS-ILC/U	Honeywell	Spyder ILC Programmable VAV Controller	Plastic / printed circuit board	1	Direct Back Panel	Interpolated
PVL4024NS/U	Honeywell	Spyder Programmable VAV Controller	Plastic / printed circuit board	1	Direct Back Panel	Interpolated
PVL4024NS-ILC/U	Honeywell	Spyder ILC Programmable VAV Controller	Plastic / printed circuit board	1	Direct Back Panel	Interpolated
PUB6438SR-ILC/U	Honeywell	Spyder ILC Programmable Unitary Controller	Plastic / printed circuit board	1	Direct Back Panel	Interpolated
PUL6438S/U	Honeywell	Spyder Programmable Unitary Controller	Plastic / printed circuit board	1	Direct Back Panel	Interpolated
PUL6438S-ILC/U	Honeywell	Spyder ILC Programmable Unitary Controller	Plastic / printed circuit board	1	Direct Back Panel	Interpolated
PUL6438SR/U	Honeywell	Spyder Programmable Unitary Controller	Plastic / printed circuit board	1	Direct Back Panel	UUT2a,b, UUT3a,b
PUL6438SR-ILC/U	Honeywell	Spyder ILC Programmable Unitary Controller	Plastic / printed circuit board	1	Direct Back Panel	Interpolated
PVB6438NS/U	Honeywell	Spyder Programmable VAV Controller	Plastic / printed circuit board	1	Direct Back Panel	Interpolated
PVB6438NS-ILC/U	Honeywell	Spyder ILC Programmable VAV Controller	Plastic / printed circuit board	1	Direct Back Panel	Interpolated
PVL6438NS/U	Honeywell	Spyder Programmable VAV Controller	Plastic / printed circuit board	1	Direct Back Panel	Interpolated
PVL6438NS-ILC/U	Honeywell	Spyder ILC Programmable VAV Controller	Plastic / printed circuit board	1	Direct Back Panel	Interpolated
PUB6438S/U	Honeywell	Spyder Programmable Unitary Controller	Plastic / printed circuit board	1	Direct Back Panel	Interpolated
PUB6438S-ILC/U	Honeywell	Spyder ILC Programmable Unitary Controller	Plastic / printed circuit board	1	Direct Back Panel	Interpolated
SIO-4022	Honeywell	Sylk IO	Plastic / printed circuit board	1	Direct Back Panel	UUT2a,b
SIO-12000	Honeywell	Sylk IO	Plastic / printed circuit board	1	Direct Back Panel	UUT3a,b
WEB-RS5N	Honeywell	Spyder 5 IRM Small	Plastic / printed circuit board	1	Direct Back Panel	UUT2a,b
WEB-RL6N	Honeywell	Spyder 5 IRM Large	Plastic / printed circuit board	1	Direct Back Panel	UUT3a,b
EM3S-V-P-D	Honeywell	EMON Black Small Indirect 2 Pulse Din Rail	Plastic / printed circuit board	<1	Din Rail	Extrapolated
EM3S-V-RS-D	Honeywell	EMON Black Small Indirect 1 Pulse & RS-485 Din Rail	Plastic / printed circuit board	<1	Din Rail	UUT2a,b, UUT3a,b
EDGE-10	Honeywell	Ciper 10, 10 I/O, 2 Ip Ports	Plastic / printed circuit board	1	Direct Back Panel	UUT4a,b
WEB-C3036EPUBNH	Honeywell	CIPer 30 Unitary Controller, 12 I/O, 4 IP ports, Unitary	Plastic / printed circuit board	1	Direct Back Panel	UUT4a,b
WEB-C3036EPVBNH	Honeywell	CIPer 30 VAV Controller, 12 I/O, 4 IP ports, VAV	Plastic / printed circuit board	1	Direct Back Panel	UUT4a,b
WEB-O9056H	Honeywell	CIPer 30 Large Expansion Module, 20 I/O, 9-BO, 5-UIO	Plastic / printed circuit board	1	Direct Back Panel	UUT4a,b
WEB-O3022H	Honeywell	CIPer 30 Small Expansion Module 7 I/O, 3-UI, 2-BO, 2-UIO	Plastic / printed circuit board	<1	Direct Back Panel	UUT4a,b
WEB-EHSeriesNX26D	Honeywell	CIPer 50 with HMI installed (Previously labled as WEB-EAGLENX26D)	Plastic / printed circuit board	1	Direct Back Panel	UUT3a,b
WEB-EHSeriesNX26ND	Honeywell	CIPer 50 without HMI (Has RJ45 socket) (Previously listed as WEB-EAGLENX26ND)	Plastic / printed circuit board	1	Direct Back Panel	UUT4a,b

Table 2.3 - Certified Subcomponents - Sensors

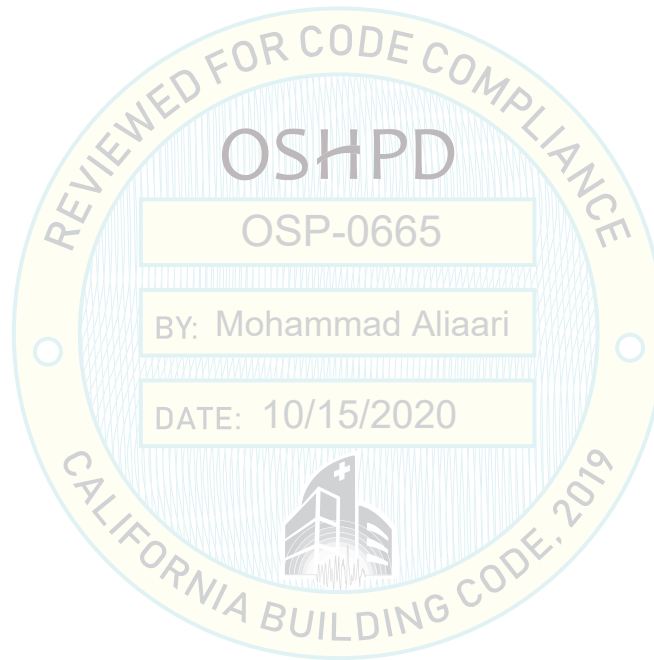| Senva Model Number	Honeywell Model Number	Manufacturer (Alternate Branding)	Description	Material	Weight (lb)	Interior Mounting Configuration	Unit
-	P7635D2V	Honeywell	Differential Pressure Switch	Plastic / printed circuit board	<1	Direct Back Panel	UUT2a,b, UUT3a,b
P5-0500-1XX	P7660P0500X	Senva (Honeywell)	Differential Pressure Switch, Din Mountable 0-5" Wc	Plastic / printed circuit board	<1	Direct Back Panel	UUT2a,b
P5-0500-1LX	P7645C0500X / P7660P0500D	Senva (Honeywell)	Differential Pressure Switch, Din Mountable 0-5" Wc Lcd	Plastic / printed circuit board	<1	Direct Back Panel	Interpolated
P5-1000-1XX	P7660P1000X	Senva (Honeywell)	Differential Pressure Switch, Din Mountable 0-10" Wc	Plastic / printed circuit board	<1	Direct Back Panel	Interpolated
P5-1000-1LX	P7660P1000D	Senva (Honeywell)	Differential Pressure Switch, Din Mountable 0-10" Wc Lcd	Plastic / printed circuit board	<1	Direct Back Panel	UUT3a,b

Table 2.4 - Certified Subcomponents - Circuit Breakers

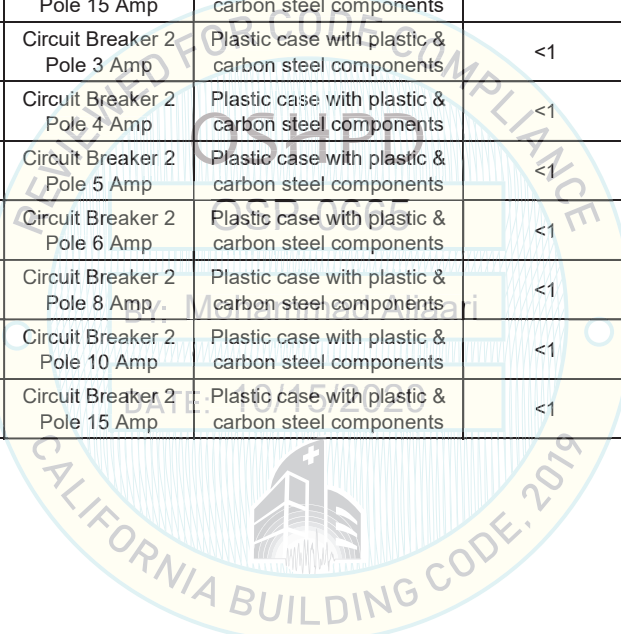| Model Number	Manufacturer Name	Description	Material	Weight (lb)	Interior Mounting Configuration	Unit
SCH M9F42103	Schneider	Circuit Breaker 1 Pole 3 Amp	Plastic case with plastic & carbon steel components	<1	Din Rail	Extrapolated
SCH M9F42104	Schneider	Circuit Breaker 1 Pole 4 Amp	Plastic case with plastic & carbon steel components	<1	Din Rail	Extrapolated
SCH M9F42105	Schneider	Circuit Breaker 1 Pole 5 Amp	Plastic case with plastic & carbon steel components	<1	Din Rail	UUT1a,b, UUT3a,b
SCH M9F42106	Schneider	Circuit Breaker 1 Pole 6 Amp	Plastic case with plastic & carbon steel components	<1	Din Rail	Interpolated
SCH M9F42108	Schneider	Circuit Breaker 1 Pole 8 Amp	Plastic case with plastic & carbon steel components	<1	Din Rail	Interpolated
SCH M9F42110	Schneider	Circuit Breaker 1 Pole 10 Amp	Plastic case with plastic & carbon steel components	<1	Din Rail	Interpolated
SCH M9F42115	Schneider	Circuit Breaker 1 Pole 15 Amp	Plastic case with plastic & carbon steel components	<1	Din Rail	UUT4a,b
SCH M9F42203	Schneider	Circuit Breaker 2 Pole 3 Amp	Plastic case with plastic & carbon steel components	<1	Din Rail	Interpolated
SCH M9F42204	Schneider	Circuit Breaker 2 Pole 4 Amp	Plastic case with plastic & carbon steel components	<1	Din Rail	Interpolated
SCH M9F42205	Schneider	Circuit Breaker 2 Pole 5 Amp	Plastic case with plastic & carbon steel components	<1	Din Rail	UUT2a,b
SCH M9F42206	Schneider	Circuit Breaker 2 Pole 6 Amp	Plastic case with plastic & carbon steel components	<1	Din Rail	Interpolated
SCH M9F42208	Schneider	Circuit Breaker 2 Pole 8 Amp	Plastic case with plastic & carbon steel components	<1	Din Rail	Interpolated
SCH M9F42210	Schneider	Circuit Breaker 2 Pole 10 Amp	Plastic case with plastic & carbon steel components	<1	Din Rail	Interpolated
SCH M9F42215	Schneider	Circuit Breaker 2 Pole 15 Amp	Plastic case with plastic & carbon steel components	<1	Din Rail	Interpolated

Table 2.5 - Certified Subcomponents - Terminals

Model Number	Manufacturer Name	Description	Material	Weight (lb)	Interior Mounting Configuration	Unit
0800886	Phoenix	Ut4/Ut10 Din Rail End Bracket	Polyamide	<1	Din Rail	UUT1a,b, UUT2a,b
3044102	Phoenix	Ut4 Gray 30 Amp Terminal	Polyamide with galvanized steel	<1	Din Rail	Interpolated
3044115	Phoenix	Ut4 Blue 30 Amp Terminal	Polyamide with galvanized steel	<1	Din Rail	Interpolated
3044128	Phoenix	Ut4 Ground 30 Amp Terminl	Polyamide with galvanized steel	<1	Din Rail	UUT1a,b, UUT2a,b, UUT3a,b, UUT4a,b
3045101	Phoenix	Ut4 Orange 30 Amp Terminal	Polyamide with galvanized steel	<1	Din Rail	Interpolated
3045114	Phoenix	Ut4 Yellow 30 Amp Terminal	Polyamide with galvanized steel	<1	Din Rail	Interpolated
3045127	Phoenix	Ut4 Red 30 Amp Terminal	Polyamide with galvanized steel	<1	Din Rail	Interpolated
3045130	Phoenix	Ut4 White 30 Amp Terminal	Polyamide with galvanized steel	<1	Din Rail	UUT1a,b, UUT3a,b, UUT4a,b
3045143	Phoenix	Ut4 Black 30 Amp Terminal	Polyamide with galvanized steel	<1	Din Rail	UUT1a,b, UUT2a,b, UUT3a,b, UUT4a,b
3045156	Phoenix	Ut4 Green 30 Amp Terminal	Polyamide with galvanized steel	<1	Din Rail	Interpolated
3045224	Phoenix	Ut4 Brown 30 Amp Terminal	Polyamide with galvanized steel	<1	Din Rail	Interpolated
3047028	Phoenix	Ut4/Ut10 End Cover For Terminal	Polyamide with galvanized steel	<1	Din Rail	Interpolated
3047167	Phoenix	Ut4/Ut10 Partition Plate	Polyamide with galvanized steel	<1	Din Rail	Interpolated
3044607	Phoenix	Ut 4 Violet 30 Amp Terminal	Polyamide with galvanized steel	<1	Din Rail	Interpolated
3044759	Phoenix	Uttb4 Ground 30 Amp Terminal Double	Polyamide with galvanized steel	<1	Din Rail	Interpolated
3044814	Phoenix	Uttb4 Gray 30 Amp Terminal Double	Polyamide with galvanized steel	<1	Din Rail	UUT4a,b

Table 2.6 - Certified Subcomponents - Panel Mount Lights

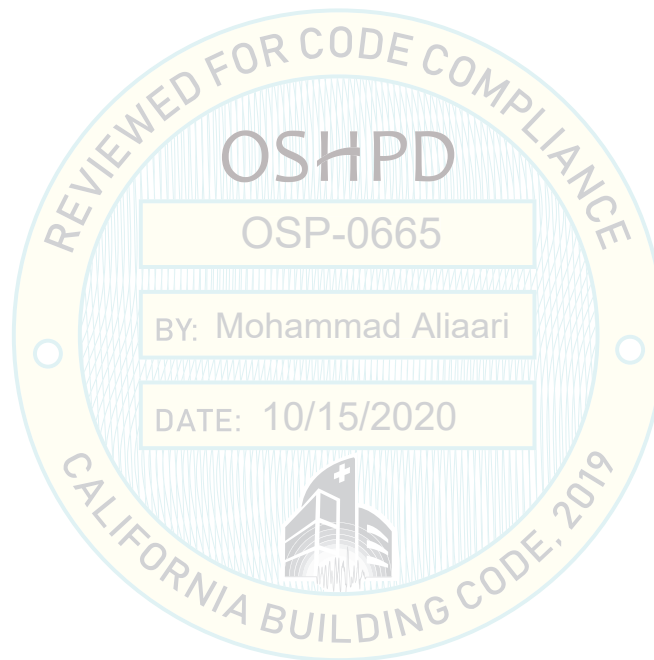| Model Number	Manufacturer Name	Description	Material	Weight (lb)	Interior Mounting Configuration	Unit
800FP-P0PN3W	Allen Bradley	Pilot Light Amber 24 Vac	Plastic	<1	Door Mounted	UUT1a,b, UUT4a,b
800FP-P0PN5W	Allen Bradley	Pilot Light Amber 120 Vac	Plastic	<1	Door Mounted	Interpolated
800FP-P3PN3G	Allen Bradley	Pilot Light Green 24 Vac	Plastic	<1	Door Mounted	UUT2a,b, UUT4a,b
800FP-P3PN5G	Allen Bradley	Pilot Light Green 120 Vac	Plastic	<1	Door Mounted	UUT3a,b
800FP-P4PN5R	Allen Bradley	Pilot Light Red 120 Vac	Plastic	<1	Door Mounted	Interpolated
800FP-P6PN3W	Allen Bradley	Pilot Light Blue 24 Vac	Plastic	<1	Door Mounted	Interpolated
800FP-P6PN5W	Allen Bradley	Pilot Light Blue 120 Vac	Plastic	<1	Door Mounted	Interpolated
800FP-P7PN3W	Allen Bradley	Pilot Light White 24 Vac	Plastic	<1	Door Mounted	Interpolated
800FP-P7PN5W	Allen Bradley	Pilot Light White 120 Vac	Plastic	<1	Door Mounted	Interpolated
800FP-P4PN3R	Allen Bradley	Pilot Light Red 24 Vac	Plastic	<1	Door Mounted	UUT2a,b, UUT3a,b

Table 2.7 - Certified Subcomponents - Switches and Push Buttons

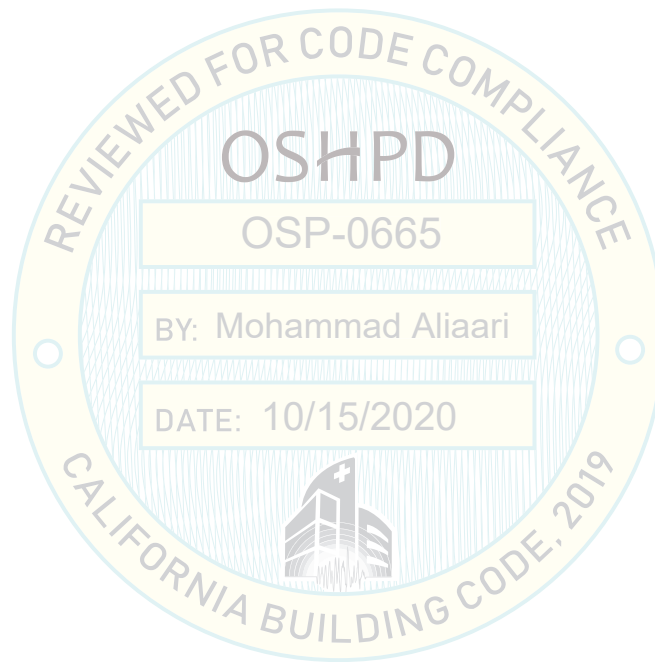| Model Number	Manufacturer Name	Description	Material	Weight (lb)	Interior Mounting Configuration	Unit
800FP-SM22PX11	Allen Bradley	2 Position Selector Switch 22mm	Thermoplastic	<1	Door Mounted	UUT1a,b, UUT2a,b, UUT3a,b
800FP-SM32PX20	Allen Bradley	3 Position Selector Switch 22mm	Thermoplastic	<1	Door Mounted	Interpolated
800FP-SM42PX22B	Allen Bradley	4 Position Selector Switch 22mm	Thermoplastic	<1	Door Mounted	Interpolated
800FP-F3PX11	Allen Bradley	Push Button Flush Green 22mm	Thermoplastic	<1	Door Mounted	Interpolated
800FP-F4PX11	Allen Bradley	Push Button Flush Red 22mm	Thermoplastic	<1	Door Mounted	UUT4a,b

Table 2.8 - Certified Subcomponents - Relays

Model Number	Manufacturer Name	Description	Material	Weight (lb)	Interior Mounting Configuration	Unit
781XAXRM4L-24A	Magnacraft	SPDT Relay 24Vac Coil 15Amp Contact	Plastic with silver alloy contacts	<1	Din Rail	UUT4a,b
782XBXRM4L-24A	Magnacraft	DPDT Relay 24Vac Coil 15Amp Contact	Plastic with silver alloy contacts	<1	Din Rail	Interpolated
783XCXRM4L-24A	Magnacraft	3PDT Relay 24Vac Coil 15Amp Contact	Plastic with silver alloy contacts	<1	Din Rail	Interpolated
784XDXRM4L-24A	Magnacraft	4PDT Relay 24Vac Coil 15Amp Contact	Plastic with silver alloy contacts	<1	Din Rail	UUT4a,b
781XAXRM4L-120A	Magnacraft	SPDT Relay 120Vac Coil 15Amp Contact	Plastic with silver alloy contacts	<1	Din Rail	UUT4a,b
782XBXRM4L-120A	Magnacraft	DPDT Relay 120Vac Coil 15Amp Contact	Plastic with silver alloy contacts	<1	Din Rail	Interpolated
783XCXRM4L-120A	Magnacraft	3PDT Relay 120Vac Coil 15Amp Contact	Plastic with silver alloy contacts	<1	Din Rail	Interpolated
784XDXRM4L-120A	Magnacraft	4PDT Relay 120Vac Coil 15Amp Contact	Plastic with silver alloy contacts	<1	Din Rail	UUT4a,b
781XAXRM4L-240A	Magnacraft	SPDT Relay 240Vac Coil 15Amp Contact	Plastic with silver alloy contacts	<1	Din Rail	UUT2a,b
782XBXRM4L-240A	Magnacraft	DPDT Relay 240Vac Coil 15Amp Contact	Plastic with silver alloy contacts	<1	Din Rail	Interpolated
783XCXRM4L-240A	Magnacraft	3PDT Relay 240Vac Coil 15Amp Contact	Plastic with silver alloy contacts	<1	Din Rail	Interpolated
784XDXRM4L-240A	Magnacraft	4PDT Relay 240Vac Coil 15Amp Contact	Plastic with silver alloy contacts	<1	Din Rail	UUT2a,b
781XAXRM4L-24D	Magnacraft	SPDT Relay 24Vdc Coil 15Amp Contact	Plastic with silver alloy contacts	<1	Din Rail	UUT3a,b
782XBXRM4L-24D	Magnacraft	DPDT Relay 24Vdc Coil 15Amp Contact	Plastic with silver alloy contacts	<1	Din Rail	Interpolated
783XCXRM4L-24D	Magnacraft	3PDT Relay 24Vdc Coil 15Amp Contact	Plastic with silver alloy contacts	<1	Din Rail	Interpolated
784XDXRM4L-24D	Magnacraft	4PDT Relay 24Vdc Coil 15Amp Contact	Plastic with silver alloy contacts	<1	Din Rail	UUT3a,b
70-781D5R-1A	Magnacraft	SPDT Relay Base For Din Rail Mount	Plastic with silver alloy contacts	<1	Din Rail	UUT1a,b, UUT2a,b, UUT3a,b
70-782D8-1A	Magnacraft	DPDT Relay Base For Din Rail Mount	Plastic with silver alloy contacts	<1	Din Rail	Interpolated
70-783D11-1A	Magnacraft	3PDT Relay Base For Din Rail Mount	Plastic with silver alloy contacts	<1	Din Rail	Interpolated
70-784D14-1	Magnacraft	4PDT Relay Base For Din Rail Mount	Plastic with silver alloy contacts	<1	Din Rail	UUT1a,b, UUT2a,b, UUT3a,b

Table 2.9 - Certified Subcomponents - Transformers

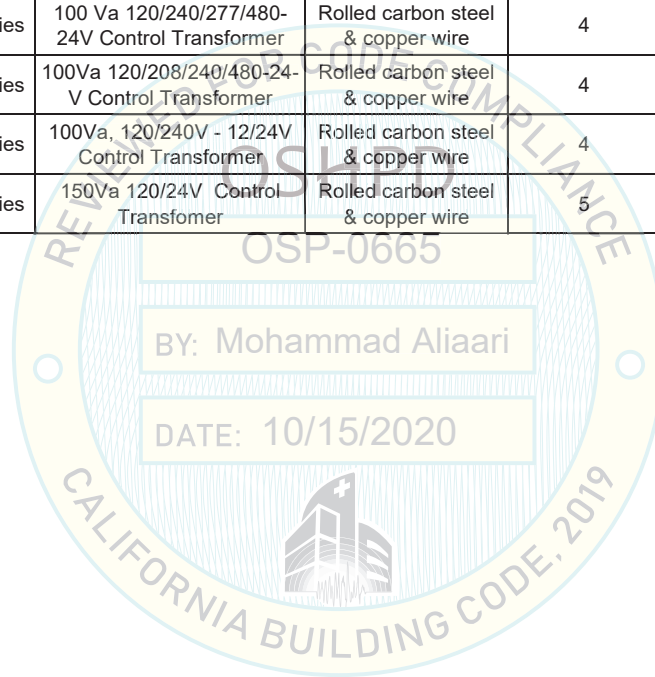| Model Number	Manufacturer Name	Description	Material	Weight (lb)	Interior Mounting Configuration	Unit
X040AAA	Veris Industries	40Va 120/24V Control Transformer	Rolled carbon steel & copper wire	1	Direct Back Panel	UUT1a,b, UUT3a,b
X040BNA	Veris Industries	40Va 120/208/240-24V Control Transformer	Rolled carbon steel & copper wire	3	Direct Back Panel	Interpolated
X050CAA	Veris Industries	50Va 120/24V Control Transformer	Rolled carbon steel & copper wire	3	Direct Back Panel	UUT4a,b
X050CBA	Veris Industries	120/240/277/480 Pri 24V Sec 50Va Transformer	Rolled carbon steel & copper wire	3	Direct Back Panel	Interpolated
X075CHA	Veris Industries	75Va 120/208/240/480 Control Transformer	Rolled carbon steel & copper wire	4	Direct Back Panel	UUT3a,b
X100CAA	Veris Industries	100Va 120/24V Control Transformer	Rolled carbon steel & copper wire	4	Direct Back Panel	Interpolated
X100CBE	Veris Industries	100 Va 120/240/277/480-24V Control Transformer	Rolled carbon steel & copper wire	4	Direct Back Panel	Interpolated
X100CHB	Veris Industries	100Va 120/208/240/480-24-V Control Transformer	Rolled carbon steel & copper wire	4	Direct Back Panel	UUT2a,b
X100CRC	Veris Industries	100Va, 120/240V - 12/24V Control Transformer	Rolled carbon steel & copper wire	4	Direct Back Panel	Interpolated
X150CAA	Veris Industries	150Va 120/24V Control Transformer	Rolled carbon steel & copper wire	5	Direct Back Panel	UUT4a,b

Table 2.10 - Certified Subcomponents - Other

Subcomponent	Model Number	Manufacturer Name	Description	Material	Weight (lb)	Interior Mounting Configuration	Unit
Displays	R8001K1010	Honeywell	Slate Display	Plastic / printed circuit board with Display	4	Door Mount	UUT3a,b, UUT4a,b
Power Supplies	2902991	Phoenix	30 Watt 120 To 24Vdc Power Supply	Plastic case with plastic & carbon steel components	<1	Din Rail	UUT1a,b
	WPM-8000	Honeywell	WEBS Power Supply	Plastic case with cord	2	Power Outlet	UUT1a,b
	2902992	Phoenix	60 Watt 120 To 24Vdc Power Supply	Plastic case with plastic & carbon steel components	<1	Din Rail	Interpolated
	2902993	Phoenix	100 Watt 120 To 24Vdc Power Supply	Plastic case with plastic & carbon steel components	<1	Din Rail	UUT3a,b, UUT4a,b
Power Outlet	JBP1MD20IW	Panduit	120V Duplex Junction Box	Plastic	<1	Din Rail	UUT1a,b, UUT3a,b, UUT4a,b
Network Devices	2891021	Phoenix	5 Port Ethernet Switch	Plastic / printed circuit board	1	Din Rail	UUT1a,b, UUT3a,b, UUT4a,b

REVIEWED FOR CODE COMPLIANCE

OSHPD

OSP-0665

BY: Mohammad Aliaari

DATE: 10/15/2020
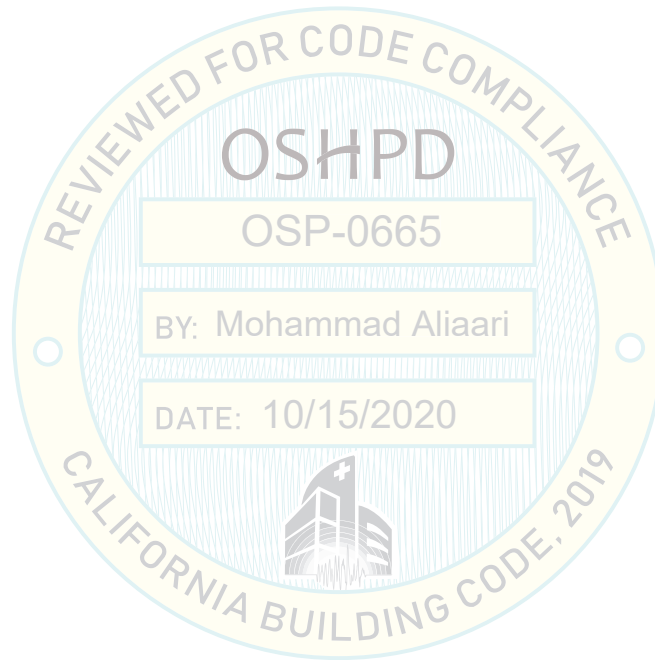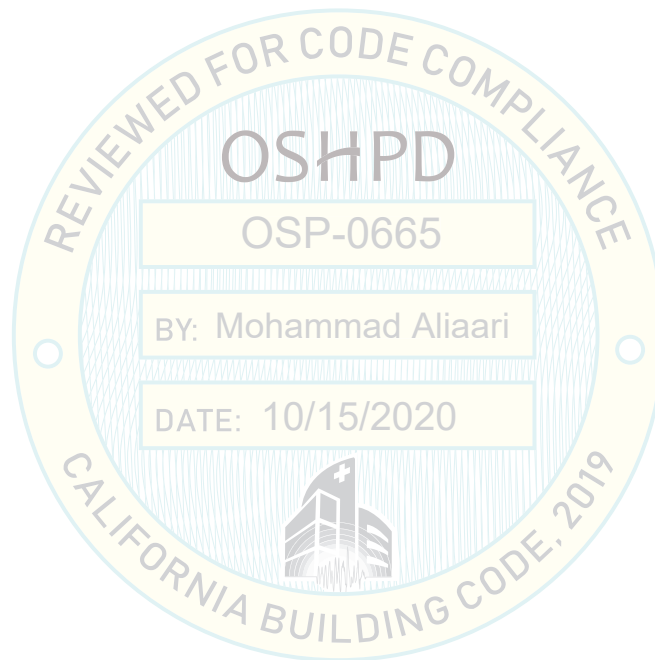
CALIFORNIA BUILDING CODE, 2019

Table 3 - Tested Units

Mounting Configuration: Rigid (a) and Isolated (b) Wall Mount
Certification Level: SDS = 2.00g, z/h=1.0

Model Number	Description	Material	Max. Dimensions (in)			Measured Weight (lb)	Unit
			Depth	Width	Height		
HCCP-07-20-24-CS	NEMA 1	Carbon Steel	7.0	20.0	24.0	54.5	UUT1a,b
HCCP-07-30-36-CS	NEMA 1	Carbon Steel	7.0	30.0	36.0	136.0	UUT2a,b
HCCP-08-36-42-CS	NEMA 4/12	Carbon Steel	9.0	36.0	42.0	170.0	UUT3a,b
HCCP-08-36-42-SS	NEMA 4/12	Stainless Steel	8.8	36.0	42.0	172.0	UUT4a,b

OSHPD

OSP-0665

BY: Mohammad Aliaari

DATE: 10/15/2020

REVIEWED FOR CODE COMPLIANCE

CALIFORNIA BUILDING CODE, 2019

UNIT UNDER TEST (UUT) - Summary Sheet
UUT1a

Manufacturer:	Honeywell
Product Line:	Custom Control Panels
Model Number:	HCCP-07-20-24-CS
Product Construction Summary:	Low Carbon Steel 16 gauge NEMA 1
Mounting Configuration:	Rigid Wall Mounted

Options / Subcomponent Summary:

Enclosure, Controller, Circuit Breaker, Terminal, Panel Mount Light, Selector Switch & Pushbutton, Relay, Transformer, Power Supply, Power Outlet, and Network Device.

Unit Mounting Description:

UUT1a is mounted to the wall fixture, the wall fixture is mounted directly to the shake table.

UUT1a was mounted with (4) 5/16" grade 5 bolts, washers, 3"x3"x3/8" carbon steel plate washers, and channel nuts. The mounting locations were spaced at 15" widthwise and 21.5" heightwise.
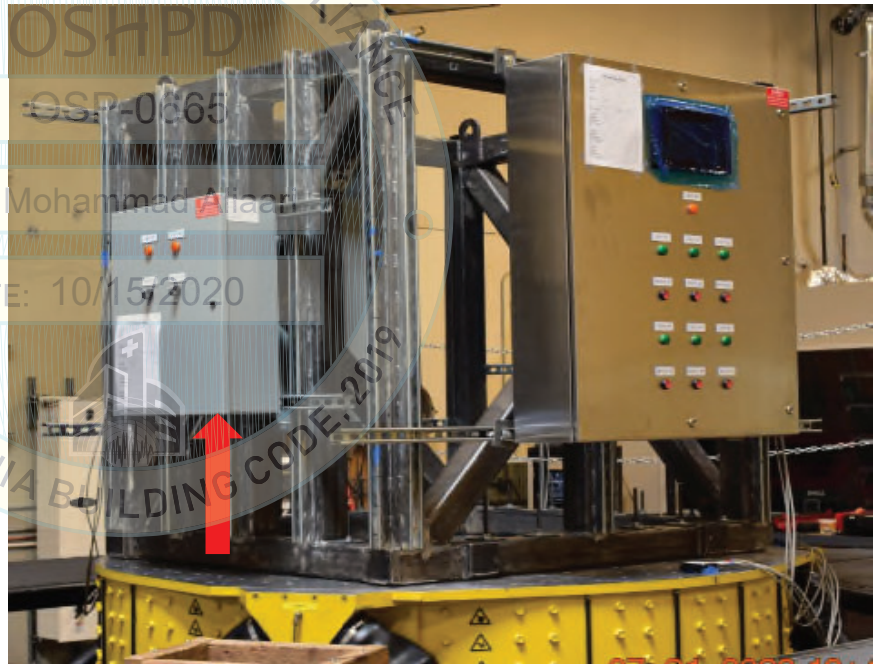
UUT Properties

UUT1a	Operating Weight (lb)	Dimensions (in)			Lowest Natural Frequency (Hz)		
		Depth	Width	Height	Front-Back	Side-Side	Vertical
	54.5	7.0	20.0	24.0	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 2019	ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	1.34	0.54

UUT1a

Rigid Mounting Configuration

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.

UNIT UNDER TEST (UUT) - Summary Sheet
UUT1b

Manufacturer:	Honeywell
Product Line:	Custom Control Panels
Model Number:	HCCP-07-20-24-CS
Product Construction Summary:	Low Carbon Steel 16 gauge NEMA 1
Mounting Configuration:	Isolated Wall Mounted

Options / Subcomponent Summary:

Enclosure, Controller, Circuit Breaker, Terminal, Panel Mount Light, Selector Switch & Pushbutton, Relay, Transformer, Power Supply, Power Outlet, and Network Device.

Unit Mounting Description:

UUT1b is mounted to the wall fixture, the wall fixture is mounted atop VMC Group isolators (model number: MSSH-1E-1700N), isolators are mounted to shake table.

UUT1b was mounted with (4) 5/16" grade 5 bolts, washers, 3"x3"x3/8" carbon steel plate washers, and channel nuts. The mounting locations were spaced at 15" widthwise and 21.5" heightwise.

UUT Properties

UUT1b	Operating Weight (lb)	Dimensions (in)			Lowest Natural Frequency (Hz)		
		Depth	Width	Height	Front-Back	Side-Side	Vertical
	54.5	7.0	20.0	24.0	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 2019	ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	1.34	0.54

UUT1b

Isolated Mounting Configuration

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.

UNIT UNDER TEST (UUT) - Summary Sheet
UUT2a

Manufacturer:	Honeywell
Product Line:	Custom Control Panels
Model Number:	HCCP-07-30-36-CS
Product Construction Summary:	Low Carbon Steel 14 gauge NEMA 1
Mounting Configuration:	Rigid Wall Mounted

Options / Subcomponent Summary:

Enclosure, Controller, Sensor, Circuit Breaker, Terminal, Panel Mount Light, Selector Switch & Pushbutton, Relay, and Transformer.

Unit Mounting Description:

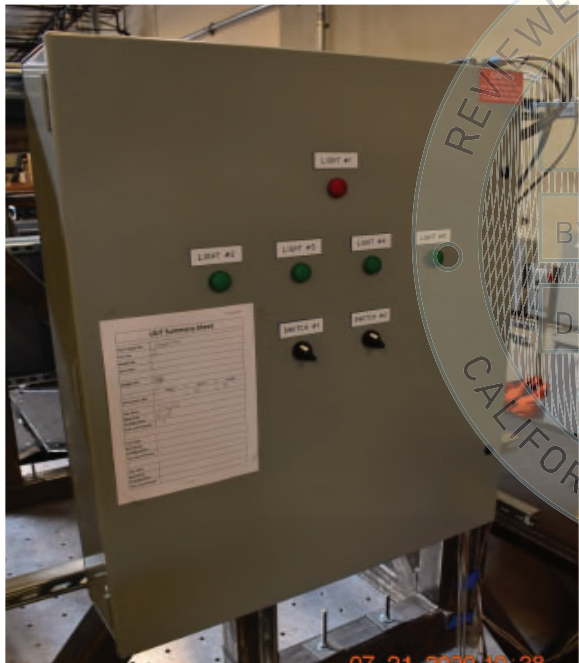UUT2a is mounted to the wall fixture, the wall fixture is mounted directly to the shake table.

UUT2a was mounted with (4) 3/8" grade 5 bolts, washers, 3"x3"x3/8" carbon steel plate washers, and channel nuts. The mounting locations were spaced at 23" widthwise and 33.5" heightwise.

UUT Properties

UUT2a	Operating Weight (lb)	Dimensions (in)			Lowest Natural Frequency (Hz)		
		Depth	Width	Height	Front-Back	Side-Side	Vertical
	136.0	7.0	30.0	36.0	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 2019	ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	1.34	0.54

UUT2a

Rigid Mounting Configuration

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.

UNIT UNDER TEST (UUT) - Summary Sheet
UUT2b

Manufacturer:	Honeywell
Product Line:	Custom Control Panels
Model Number:	HCCP-07-30-36-CS
Product Construction Summary:	Low Carbon Steel 14 gauge NEMA 1
Mounting Configuration:	Isolated Wall Mounted

Options / Subcomponent Summary:

Enclosure, Controller, Sensor, Circuit Breaker, Terminal, Panel Mount Light, Selector Switch & Pushbutton, Relay, and Transformer.

Unit Mounting Description:

UUT2b is mounted to the wall fixture, the wall fixture is mounted atop VMC Group isolators (model number: MSSH-1E-1700N), isolators are mounted to shake table.

UUT2b was mounted with (4) 3/8" grade 5 bolts, washers, 3"x3"x3/8" carbon steel plate washers, and channel nuts. The mounting locations were spaced at 23" widthwise and 33.5" heightwise.

UUT Properties

UUT2b	Operating Weight (lb)	Dimensions (in)			Lowest Natural Frequency (Hz)		
		Depth	Width	Height	Front-Back	Side-Side	Vertical
	136.0	7.0	30.0	36.0	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 2019	ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	1.34	0.54

UUT2b

Isolated Mounting Configuration

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.

UNIT UNDER TEST (UUT) - Summary Sheet
UUT3a

Manufacturer:	Honeywell
Product Line:	Custom Control Panels
Model Number:	HCCP-08-36-42-CS
Product Construction Summary:	Low Carbon Steel 14 gauge NEMA 4/12
Mounting Configuration:	Rigid Wall Mounted

Options / Subcomponent Summary:

Enclosure, Controller, Sensor, Circuit Breaker, Terminal, Panel Mount Light, Selector Switch & Pushbutton, Relay, Transformer, Display, Power Supply, Power Outlet, and Network Device.

Unit Mounting Description:

UUT3a is mounted to the wall fixture utilizing (4) carbon steel manufacturer provided brackets (Part Number: EZPMFHD, Size: 2.73"H x 1.4"W x 0.37" D). The wall fixture is mounted directly to the shake table.

UUT3a was mounted to the brackets with (4) 3/8" grade 5 bolts, washers, and nuts. The bracket is mounted to the wall fixture with (4) 3/8" grade 5 bolts, washers, 3"x3"x3/8" carbon steel plate washer and channel nuts. The mounting locations to the wall fixture were spaced at 34.5" widthwise at the top, 37.5" widthwise at the bottom, and 42" heightwise.

UUT Properties

UUT3a	Operating Weight (lb)	Dimensions (in)			Lowest Natural Frequency (Hz)		
		Depth	Width	Height	Front-Back	Side-Side	Vertical
	170.0	9.0	36.0	42.0	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 2019	ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	1.34	0.54

UUT3a

Rigid Mounting Configuration

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.

UNIT UNDER TEST (UUT) - Summary Sheet
UUT3b

Manufacturer:	Honeywell
Product Line:	Custom Control Panels
Model Number:	HCCP-08-36-42-CS
Product Construction Summary:	Low Carbon Steel 14 gauge NEMA 4/12
Mounting Configuration:	Isolated Wall Mounted

Options / Subcomponent Summary:

Enclosure, Controller, Sensor, Circuit Breaker, Terminal, Panel Mount Light, Selector Switch & Pushbutton, Relay, Transformer, Display, Power Supply, Power Outlet, and Network Device.

Unit Mounting Description:

UUT3b is mounted to the wall fixture, utilizing (4) carbon steel manufacturer provided brackets (Part Number: EZPMFHD, Size: 2.73"H x 1.4"W x 0.37" D). The wall fixture is mounted atop VMC Group isolators (model number: MSSH-1E-1700N), isolators are mounted to shake table.

UUT3b was mounted to the brackets with (4) 3/8" grade 5 bolts, washers, and nuts. The bracket is mounted to the wall fixture with (4) 3/8" grade 5 bolts, washers, 3"x3"x3/8" carbon steel plate washer and channel nuts. The mounting locations to the wall fixture were spaced at 34.5" widthwise at the top, 37.5" widthwise at the bottom, and 42" heightwise.
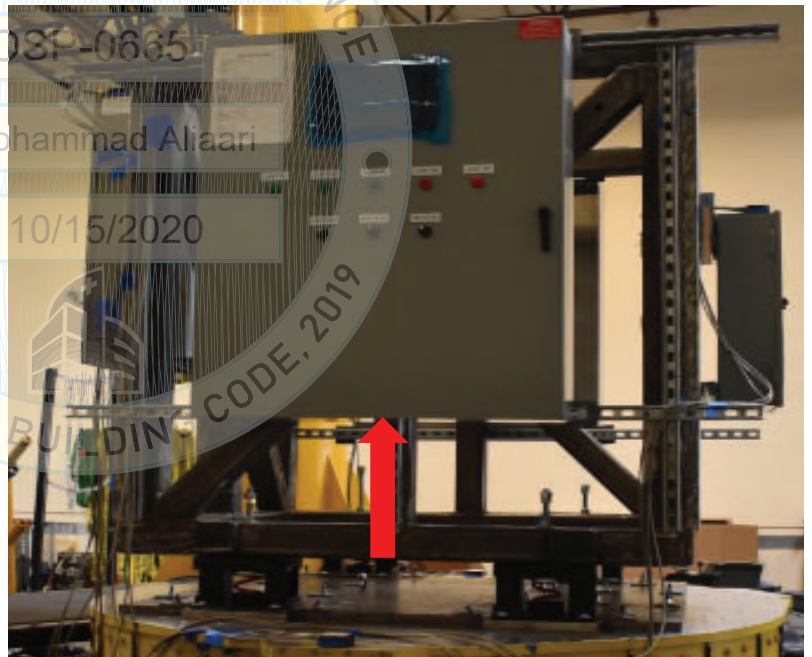
UUT Properties

UUT3b	Operating Weight (lb)	Dimensions (in)			Lowest Natural Frequency (Hz)		
		Depth	Width	Height	Front-Back	Side-Side	Vertical
	170.0	9.0	36.0	42.0	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 2019	ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	1.34	0.54

UUT3b

Isolated Mounting Configuration

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.

UNIT UNDER TEST (UUT) - Summary Sheet
UUT4a

Manufacturer:	Honeywell
Product Line:	Custom Control Panels
Model Number:	HCCP-08-36-42-SS
Product Construction Summary:	304 Stainless Steel 14 gauge NEMA 4/12
Mounting Configuration:	Rigid Wall Mounted

Options / Subcomponent Summary:

Enclosure, Controller, Circuit Breaker, Terminal, Panel Mount Light, Selector Switch & Pushbutton, Relay, Transformer, Display, Power Supply, Power Outlet, and Network Device.

Unit Mounting Description:

UUT4a is mounted to the wall fixture utilizing (4) stainless steel manufacturer provided brackets (Part Number: ESSMFHD, Size: 2.73"H x 1.4"W x 0.37" D). The wall fixture is mounted directly to the shake table.

UUT4a was mounted to the brackets with (4) 3/8" grade 5 bolts, washers, and nuts. The bracket is mounted to the wall fixture with (4) 3/8" grade 5 bolts, washers, 3"x3"x3/8" carbon steel plate washer and channel nuts. The mounting locations to the wall fixture were spaced at 34.5" widthwise at the top, 37.5" widthwise at the bottom, and 41.5" heightwise.

UUT Properties

UUT4a	Operating Weight (lb)	Dimensions (in)			Lowest Natural Frequency (Hz)		
		Depth	Width	Height	Front-Back	Side-Side	Vertical
	172.0	8.8	36.0	42.0	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 2019	ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	1.34	0.54

UUT4a

Rigid Mounting Configuration

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.

UNIT UNDER TEST (UUT) - Summary Sheet
UUT4b

Manufacturer:	Honeywell
Product Line:	Custom Control Panels
Model Number:	HCCP-08-36-42-SS
Product Construction Summary:	304 Stainless Steel 14 gauge NEMA 4/12
Mounting Configuration:	Isolated Wall Mounted

Options / Subcomponent Summary:

Enclosure, Controller, Circuit Breaker, Terminal, Panel Mount Light, Selector Switch & Pushbutton, Relay, Transformer, Display, Power Supply, Power Outlet, and Network Device.

Unit Mounting Description:

UUT4b is mounted to the wall fixture, utilizing (4) stainless steel manufacturer provided brackets (Part Number: ESSMFHD, Size: 2.73"H x 1.4"W x 0.37" D). The wall fixture is mounted atop VMC Group isolators (model number: MSSH-1E-1700N), isolators are mounted to shake table.

UUT4b was mounted to the brackets with (4) 3/8" grade 5 bolts, washers, and nuts. The bracket is mounted to the wall fixture with (4) 3/8" grade 5 bolts, washers, 3"x3"x3/8" carbon steel plate washer and channel nuts. The mounting locations to the wall fixture were spaced at 34.5" widthwise at the top, 37.5" widthwise at the bottom, and 41.5" heightwise.
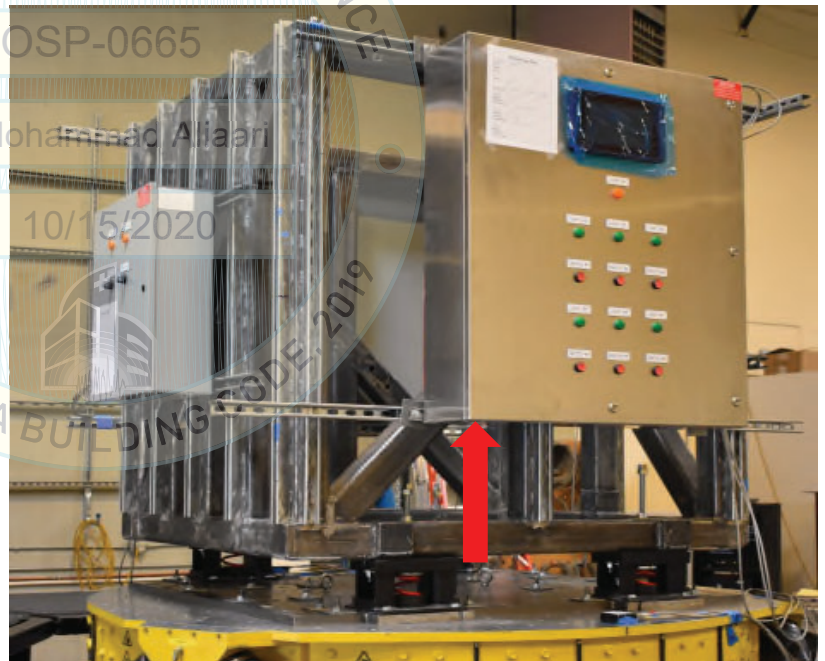
UUT Properties

UUT4b	Operating Weight (lb)	Dimensions (in)			Lowest Natural Frequency (Hz)		
		Depth	Width	Height	Front-Back	Side-Side	Vertical
	172.0	8.8	36.0	42.0	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 2019	ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	1.34	0.54

UUT4b

Isolated Mounting Configuration

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.