



OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT
FACILITIES DEVELOPMENT DIVISION

APPLICATION FOR OSHPD SPECIAL SEISMIC
CERTIFICATION PREAPPROVAL (OSP)

OFFICE USE ONLY
APPLICATION #: OSP - 0199

OSHPD Special Seismic Certification Preapproval (OSP)

Type: [] New [X] Renewal

Manufacturer Information

Manufacturer: Schneider Electric

Manufacturer's Technical Representative: Doug D'Ambrogia

Mailing Address: 5735 West Las Positas Boulevard, Suite 400, Pleasanton, California 94588

Telephone: 925.463.7150 Email: doug.dambrogia@se.com

Product Information

Product Name: Temperature Control Panels

Product Type: HVAC Control Panels

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

General Description: Schneider Electric temperature control panels contain Schneider controllers and network
equipment for the management of mechanical units.

Mounting Description: Rigid wall mounted.

Applicant Information

Applicant Company Name: Manwill Engineering LLC

Contact Person: Derek Manwill, SE

Mailing Address: PO Box 1194, Bend, OR 97709

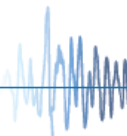
Telephone: 541.241.2102 Email: derek@manwillSE.com

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: [Handwritten Signature] Date: 10/14/2020

Title: President Company Name: Manwill Engineering LLC

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





**OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT
FACILITIES DEVELOPMENT DIVISION**

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

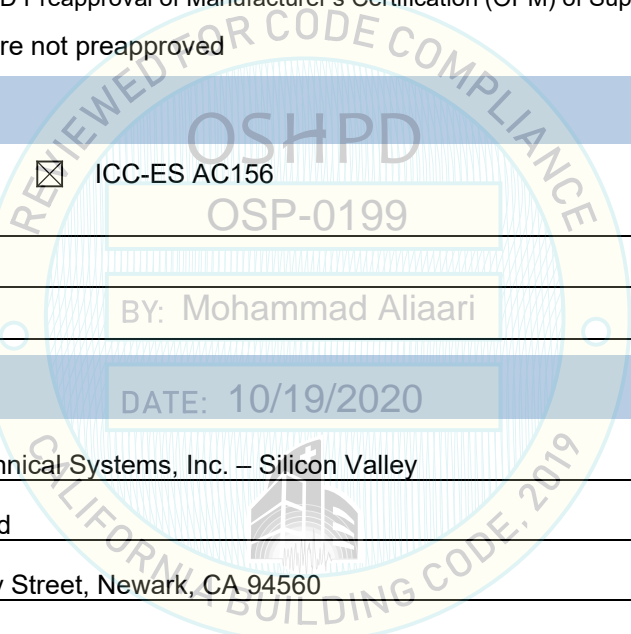
Telephone: 541.241.2102 Email: derek@manwillSE.com

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): _____



Testing Laboratory

Company Name: National Technical Systems, Inc. – Silicon Valley

Contact Name: Rajnish Nand

Mailing Address: 38995 Cherry Street, Newark, CA 94560

Telephone: 510.578.3500 Email: rajnish.nand@nts.com

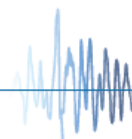
Testing Laboratory

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





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Seismic Parameters

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

Design Basis of Equipment or Components (F_p/W_p) = 1.50 ($S_{DS} = 2.00, z/h=1$); 1.00 ($S_{DS} = 2.23, z/h=0$)

S_{DS} (Design spectral response acceleration at short period, g) = 2.00 ($z/h = 1$); 2.23 ($z/h = 0$)

a_p (In-structure equipment or component amplification factor) = 2.5

R_p (Equipment or component response modification factor) = 6.0

Ω_0 (System overstrength factor) = 2.0

I_p (Importance factor) = 1.5

z/h (Height factor ratio) = 1 ($S_{DS} = 2.00$); 0 ($S_{DS} = 2.23$)

Equipment or Component Natural Frequencies (Hz) = N/A (wall mounted)

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) = by: Mohammad Aliaari

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

List of Attachments Supporting Special Seismic Certification

Test Report(s) Drawings Calculations Manufacturer's Catalog

Other(s) (Please Specify): Attachments 1 & 2

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

Signature: M. Aliaari

Date: October 19, 2020

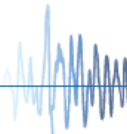
Print Name: Mohammad Aliaari

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 - TEMPERATURE CONTROL PANELS

DOCUMENT NO.: 18071CR1.1

MANUFACTURER: SCHNEIDER ELECTRIC						
PRODUCT FAMILY: TEMPERATURE CONTROL PANELS						
MODEL NUMBER	DIMENSIONS (in)			MAX. WT. (lb)	DESCRIPTION / NOTES	BASIS
	DEPTH	WIDTH	HEIGHT			
Temperature Control Panels (custom)						
CUSTOM-8X8X6	6.0	8.0	8.0	12		UUT 1
...	...				Interpolated sizes	INTERP
CUSTOM-12X16X6	6.0	12.0	16.0	21		UUT 4
...	...				Interpolated sizes	INTERP
CUSTOM-24X24X8	7.9	23.6	23.6	53		UUT 8
...	...				Interpolated sizes	INTERP
CUSTOM-32X39X10	9.8	31.5	39.4	109		UUT 9
...	...				Interpolated sizes	INTERP
CUSTOM-30X48X10	10.0	30.0	48.0	153		UUT 5
CUSTOM-30X48X10	10.0	30.0	48.0	153		UUT 7
...	...				Interpolated sizes	INTERP
CUSTOM-36X48X17	17.3	36.0	48.0	246		UUT 2
...	...				Interpolated sizes	INTERP
CUSTOM-36X60X12	12	36	60	321		UUT 6
MOUNTING:	Rigid wall mounted.			SEISMIC LEVELS:	$S_{DS} = 2.00g$ for $z/h = 1$ $S_{DS} = 2.23g$ for $z/h = 0$ $I_p = 1.5$	
NOTES:	Product Construction: Carbon steel enclosure. Options/Subcomponents: NEMA 1, NEMA 3R, NEMA 4, or NEMA 12 enclosures as listed in Table 2. See Table 3 for a list of certified subcomponents. The weight of the complete controller must be less than or equal to the maximum weight listed for the selected enclosure in Table 2.					

ATTACHMENT 1: CERTIFIED SUBCOMPONENTS

SPECIAL SEISMIC CERTIFICATION

TABLE 2 - ENCLOSURES

DOCUMENT NO.: 18071CR1.1

MANUFACTURER: SCHNEIDER ELECTRIC						
PRODUCT FAMILY: TEMPERATURE CONTROL PANELS						
MODEL NUMBER	DIMENSIONS (in)			MAX. WT. (lb)	DESCRIPTION / NOTES	BASIS
	DEPTH	WIDTH	HEIGHT			
Schneider Electric - Control Panel Enclosures						
SEBOX121806	5.9	17.7	11.8	20	NEMA 4	EXTRAP
SEBOX121806P	5.9	17.7	11.8	20	NEMA 4 w/ perforated panel	EXTRAP
SEBOX161608	7.9	15.6	15.6	24	NEMA 4	EXTRAP
SEBOX161608P	7.9	15.6	15.6	24	NEMA 4 w/ perforated panel	EXTRAP
SEBOX202010	9.8	19.7	19.7	37	NEMA 4	EXTRAP
SEBOX202010P	9.8	19.7	19.7	37	NEMA 4 w/ perforated panel	EXTRAP
SEBOX242408	7.9	23.6	23.6	53	NEMA 4	EXTRAP
SEBOX242408P	7.9	23.6	23.6	53	NEMA 4 w/ perforated panel	UUT 8
SEBOX392410	9.8	23.6	39.4	82	NEMA 4	INTERP
SEBOX392410P	9.8	23.6	39.4	82	NEMA 4 w/ perforated panel	INTERP
SEBOX393210	9.8	31.5	39.4	109	NEMA 4	INTERP
SEBOX393210P	9.8	31.5	39.4	109	NEMA 4 w/ perforated panel	UUT 9
Hoffman - Control Panel Enclosures						
A8N86	6.0	8.0	8.0	12	NEMA 1	EXTRAP
A8R86HCR	6.0	8.0	8.0	12	NEMA 3R	UUT 1
A10N86	6.0	8.0	10.0	12	NEMA 1	INTERP
A10R86HCR	6.0	8.0	10.0	12	NEMA 3R	INTERP
A10N106	6.0	10.0	10.0	15	NEMA 1	INTERP
A12N106	6.0	10.0	12.0	18	NEMA 1	INTERP
A12R106HCR	6.0	10.0	12.0	18	NEMA 3R	INTERP
A12N126	6.0	12.0	12.0	22	NEMA 1	INTERP
A12R126HCR	6.0	12.0	12.0	22	NEMA 3R	INTERP
CSD12126	6.0	12.0	12.0	22	NEMA 4,12	INTERP
CSD12126LG	6.0	12.0	12.0	22	NEMA 4,12	INTERP
A14N126	6.0	12.0	14.0	25	NEMA 1	INTERP
A12N128	8.0	12.0	12.0	22	NEMA 1	INTERP
A16N126	6.0	12.0	16.0	29	NEMA 1	INTERP
A16R126HCR	6.0	12.0	16.0	29	NEMA 3R	INTERP
CSD16126	6.0	12.0	16.0	29	NEMA 4,12	INTERP
CSD16126LG	6.0	12.0	16.0	29	NEMA 4,12	INTERP
A16N12ALP	6.6	12.0	16.0	29	NEMA 1	INTERP
A14N128	8.0	12.0	14.0	25	NEMA 1	INTERP
A12R1210HCR	10.0	12.0	12.0	22	NEMA 3R	INTERP
A20N126	6.0	12.0	20.0	36	NEMA 1	INTERP
CSD16128	8.0	12.0	16.0	29	NEMA 4,12	INTERP
CSD16128LG	8.0	12.0	16.0	29	NEMA 4,12	INTERP
A16R166HCR	6.0	16.0	16.0	39	NEMA 3R	INTERP
CSD16166	6.0	16.0	16.0	39	NEMA 4,12	INTERP
CSD16166LG	6.0	16.0	16.0	39	NEMA 4,12	INTERP
A16N12BLP	8.6	12.0	16.0	29	NEMA 1	INTERP
A16N16ALP	6.6	16.0	16.0	39	NEMA 1	INTERP
CSD161210	10.0	12.0	16.0	29	NEMA 4,12	INTERP
NOTES:	Table continues on the next page. Additional notes, information, and seismic parameters are shown at the end of the table.					

ATTACHMENT 1: CERTIFIED SUBCOMPONENTS

SPECIAL SEISMIC CERTIFICATION

TABLE 2 - ENCLOSURES (continued)

DOCUMENT NO.: 18071CR1.1

MANUFACTURER: SCHNEIDER ELECTRIC						
PRODUCT FAMILY: TEMPERATURE CONTROL PANELS						
MODEL NUMBER	DIMENSIONS (in)			MAX. WT. (lb)	DESCRIPTION / NOTES	BASIS
	DEPTH	WIDTH	HEIGHT			
Hoffman - Control Panel Enclosures (continued)						
CSD161210LG	10.0	12.0	16.0	29	NEMA 4,12	INTERP
CSD16206	6.0	20.0	16.0	48	NEMA 4,12	INTERP
CSD16206LG	6.0	20.0	16.0	48	NEMA 4,12	INTERP
A20R166HCR	6.0	16.0	20.0	48	NEMA 3R	INTERP
CSD20166	6.0	16.0	20.0	48	NEMA 4,12	INTERP
CSD20166LG	6.0	16.0	20.0	48	NEMA 4,12	INTERP
A18R186HCR	6.0	18.0	18.0	49	NEMA 3R	INTERP
CSD16168	8.0	16.0	16.0	39	NEMA 4,12	INTERP
CSD16168LG	8.0	16.0	16.0	39	NEMA 4,12	INTERP
A20N12BLP	8.6	12.0	20.0	36	NEMA 1	INTERP
A16N20ALP	6.6	20.0	16.0	48	NEMA 1	INTERP
A20N16ALP	6.6	16.0	20.0	48	NEMA 1	INTERP
CSD24166	6.0	16.0	24.0	58	NEMA 4,12	INTERP
CSD24166LG	6.0	16.0	24.0	58	NEMA 4,12	INTERP
CSD20206	6.0	20.0	20.0	60	NEMA 4,12	INTERP
CSD20206LG	6.0	20.0	20.0	60	NEMA 4,12	INTERP
A24N16ALP	6.6	16.0	24.0	58	NEMA 1	INTERP
CSD161610	10.0	16.0	16.0	39	NEMA 4,12	INTERP
CSD161610LG	10.0	16.0	16.0	39	NEMA 4,12	INTERP
CSD16208	8.0	20.0	16.0	48	NEMA 4,12	INTERP
CSD16208LG	8.0	20.0	16.0	48	NEMA 4,12	INTERP
CSD20168	8.0	16.0	20.0	48	NEMA 4,12	INTERP
CSD20168LG	8.0	16.0	20.0	48	NEMA 4,12	INTERP
A20N20ALP	6.6	20.0	20.0	60	NEMA 1	INTERP
A20N16BLP	8.6	16.0	20.0	48	NEMA 1	INTERP
CSD24206	6.0	20.0	24.0	72	NEMA 4,12	INTERP
CSD24206LG	6.0	20.0	24.0	72	NEMA 4,12	INTERP
CSD24168	8.0	16.0	24.0	58	NEMA 4,12	INTERP
CSD24168LG	8.0	16.0	24.0	58	NEMA 4,12	INTERP
A24N20ALP	6.6	20.0	24.0	72	NEMA 1	INTERP
CSD162010	10.0	20.0	16.0	48	NEMA 4,12	INTERP
CSD162010LG	10.0	20.0	16.0	48	NEMA 4,12	INTERP
CSD201610	10.0	16.0	20.0	48	NEMA 4,12	INTERP
CSD201610LG	10.0	16.0	20.0	48	NEMA 4,12	INTERP
A20R208HCR	8.0	20.0	20.0	60	NEMA 3R	INTERP
CSD20208	8.0	20.0	20.0	60	NEMA 4,12	INTERP
CSD20208LG	8.0	20.0	20.0	60	NEMA 4,12	INTERP
A18R1810HCR	10.0	18.0	18.0	49	NEMA 3R	INTERP
A18N18CLP	10.6	18.0	18.0	49	NEMA 1	INTERP
A20N20BLP	8.6	20.0	20.0	60	NEMA 1	INTERP
A24N24ALP	6.6	24.0	24.0	86	NEMA 1	INTERP
CSD241610	10.0	16.0	24.0	58	NEMA 4,12	INTERP

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

ATTACHMENT 1: CERTIFIED SUBCOMPONENTS

SPECIAL SEISMIC CERTIFICATION

TABLE 2 - ENCLOSURES (continued)

DOCUMENT NO.: 18071CR1.1

MANUFACTURER: SCHNEIDER ELECTRIC						
PRODUCT FAMILY: TEMPERATURE CONTROL PANELS						
MODEL NUMBER	DIMENSIONS (in)			MAX. WT. (lb)	DESCRIPTION / NOTES	BASIS
	DEPTH	WIDTH	HEIGHT			
Hoffman - Control Panel Enclosures (continued)						
CSD241610LG	10.0	16.0	24.0	58	NEMA 4,12	INTERP
CSD20248	8.0	24.0	20.0	72	NEMA 4,12	INTERP
CSD20248LG	8.0	24.0	20.0	72	NEMA 4,12	INTERP
A24R208HCR	8.0	20.0	24.0	72	NEMA 3R	INTERP
CSD24208	8.0	20.0	24.0	72	NEMA 4,12	INTERP
CSD24208LG	8.0	20.0	24.0	72	NEMA 4,12	INTERP
CSD202010	10.0	20.0	20.0	60	NEMA 4,12	INTERP
CSD202010LG	10.0	20.0	20.0	60	NEMA 4,12	INTERP
A24N20BLP	8.6	20.0	24.0	72	NEMA 1	INTERP
A24R248HCR	8.0	24.0	24.0	86	NEMA 3R	INTERP
CSD24248	8.0	24.0	24.0	86	NEMA 4,12	INTERP
CSD24248LG	8.0	24.0	24.0	86	NEMA 4,12	INTERP
A30N24ALP	6.6	24.0	30.0	107	NEMA 1	INTERP
CSD202012	12.0	20.0	20.0	60	NEMA 4,12	INTERP
CSD202012LG	12.0	20.0	20.0	60	NEMA 4,12	INTERP
CSD202410	10.0	24.0	20.0	72	NEMA 4,12	INTERP
CSD202410LG	10.0	24.0	20.0	72	NEMA 4,12	INTERP
CSD242010	10.0	20.0	24.0	72	NEMA 4,12	INTERP
CSD242010LG	10.0	20.0	24.0	72	NEMA 4,12	INTERP
CSD30208	8.0	20.0	30.0	90	NEMA 4,12	INTERP
CSD30208LG	8.0	20.0	30.0	90	NEMA 4,12	INTERP
A24N24BLP	8.6	24.0	24.0	86	NEMA 1	INTERP
A24N20CLP	10.6	20.0	24.0	72	NEMA 1	INTERP
A30N20BLP	8.6	20.0	30.0	90	NEMA 1	INTERP
A36N24ALP	6.6	24.0	36.0	129	NEMA 1	INTERP
CSD242012	12.0	20.0	24.0	72	NEMA 4,12	INTERP
CSD242012LG	12.0	20.0	24.0	72	NEMA 4,12	INTERP
A24R2410HCR	10.0	24.0	24.0	86	NEMA 3R	INTERP
CSD242410	10.0	24.0	24.0	86	NEMA 4,12	INTERP
CSD242410LG	10.0	24.0	24.0	86	NEMA 4,12	INTERP
CSD24308	8.0	30.0	24.0	107	NEMA 4,12	INTERP
CSD24308LG	8.0	30.0	24.0	107	NEMA 4,12	INTERP
A30R248HCR	8.0	24.0	30.0	107	NEMA 3R	INTERP
CSD30248	8.0	24.0	30.0	107	NEMA 4,12	INTERP
CSD30248LG	8.0	24.0	30.0	107	NEMA 4,12	INTERP
CSD302010	10.0	20.0	30.0	90	NEMA 4,12	INTERP
CSD302010LG	10.0	20.0	30.0	90	NEMA 4,12	INTERP
A30N24BLP	8.6	24.0	30.0	107	NEMA 1	INTERP
CSD242412	12.0	24.0	24.0	86	NEMA 4,12	INTERP
CSD242412LG	12.0	24.0	24.0	86	NEMA 4,12	INTERP
CSD36248	8.0	24.0	36.0	129	NEMA 4,12	INTERP
CSD36248LG	8.0	24.0	36.0	129	NEMA 4,12	INTERP

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

ATTACHMENT 1: CERTIFIED SUBCOMPONENTS

SPECIAL SEISMIC CERTIFICATION

TABLE 2 - ENCLOSURES (continued)

DOCUMENT NO.: 18071CR1.1

MANUFACTURER: SCHNEIDER ELECTRIC						
PRODUCT FAMILY: TEMPERATURE CONTROL PANELS						
MODEL NUMBER	DIMENSIONS (in)			MAX. WT. (lb)	DESCRIPTION / NOTES	BASIS
	DEPTH	WIDTH	HEIGHT			
Hoffman - Control Panel Enclosures (continued)						
A36N30ALP	6.6	30.0	36.0	161	NEMA 1	INTERP
CSD243010	10.0	30.0	24.0	107	NEMA 4,12	INTERP
CSD243010LG	10.0	30.0	24.0	107	NEMA 4,12	INTERP
A30R2410HCR	10.0	24.0	30.0	107	NEMA 3R	INTERP
CSD302410	10.0	24.0	30.0	107	NEMA 4,12	INTERP
CSD302410LG	10.0	24.0	30.0	107	NEMA 4,12	INTERP
A30R308HCR	8.0	30.0	30.0	134	NEMA 3R	INTERP
CSD30308	8.0	30.0	30.0	134	NEMA 4,12	INTERP
CSD30308LG	8.0	30.0	30.0	134	NEMA 4,12	INTERP
A24N24DLP	12.6	24.0	24.0	86	NEMA 1	INTERP
A36N24BLP	8.6	24.0	36.0	129	NEMA 1	INTERP
A30N24CLP	10.6	24.0	30.0	107	NEMA 1	INTERP
A30N30BLP	8.6	30.0	30.0	134	NEMA 1	INTERP
CSD302412	12.0	24.0	30.0	107	NEMA 4,12	INTERP
CSD302412LG	12.0	24.0	30.0	107	NEMA 4,12	INTERP
CSD362410	10.0	24.0	36.0	129	NEMA 4,12	INTERP
CSD362410LG	10.0	24.0	36.0	129	NEMA 4,12	INTERP
CSD36308	8.0	30.0	36.0	161	NEMA 4,12	INTERP
CSD36308LG	8.0	30.0	36.0	161	NEMA 4,12	INTERP
CSD303010	10.0	30.0	30.0	134	NEMA 4,12	INTERP
CSD303010LG	10.0	30.0	30.0	134	NEMA 4,12	INTERP
A30N24DLP	12.6	24.0	30.0	107	NEMA 1	INTERP
CSD242416	16.0	24.0	24.0	86	NEMA 4,12	INTERP
CSD242416LG	16.0	24.0	24.0	86	NEMA 4,12	INTERP
A36N30BLP	8.6	30.0	36.0	161	NEMA 1	INTERP
A36R2412HCR	12.0	24.0	36.0	129	NEMA 3R	INTERP
CSD362412	12.0	24.0	36.0	129	NEMA 4,12	INTERP
CSD362412LG	12.0	24.0	36.0	129	NEMA 4,12	INTERP
CSD36368	8.0	36.0	36.0	193	NEMA 4,12	INTERP
CSD36368LG	8.0	36.0	36.0	193	NEMA 4,12	INTERP
A30R3012HCR	12.0	30.0	30.0	134	NEMA 3R	INTERP
CSD303012	12.0	30.0	30.0	134	NEMA 4,12	INTERP
CSD303012LG	12.0	30.0	30.0	134	NEMA 4,12	INTERP
CSD363010	10.0	30.0	36.0	161	NEMA 4,12	INTERP
CSD363010LG	10.0	30.0	36.0	161	NEMA 4,12	INTERP
CSD482410	10.0	24.0	48.0	172	NEMA 4,12	INTERP
CSD482410LG	10.0	24.0	48.0	172	NEMA 4,12	INTERP
A42N3009	9.3	30.0	42.0	188	NEMA 1	INTERP
A36R3012HCR	12.0	30.0	36.0	161	NEMA 3R	INTERP
CSD363012	12.0	30.0	36.0	161	NEMA 4,12	INTERP
CSD363012LG	12.0	30.0	36.0	161	NEMA 4,12	INTERP
A36R3610HCR	10.0	36.0	36.0	193	NEMA 3R	INTERP

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

ATTACHMENT 1: CERTIFIED SUBCOMPONENTS

SPECIAL SEISMIC CERTIFICATION

TABLE 2 - ENCLOSURES (continued)

DOCUMENT NO.: 18071CR1.1

MANUFACTURER: SCHNEIDER ELECTRIC						
PRODUCT FAMILY: TEMPERATURE CONTROL PANELS						
MODEL NUMBER	DIMENSIONS (in)			MAX. WT. (lb)	DESCRIPTION / NOTES	BASIS
	DEPTH	WIDTH	HEIGHT			
Hoffman - Control Panel Enclosures (continued)						
CSD363610	10.0	36.0	36.0	193	NEMA 4,12	INTERP
CSD363610LG	10.0	36.0	36.0	193	NEMA 4,12	INTERP
A36N30DLP	12.6	30.0	36.0	161	NEMA 1	INTERP
CSD482412	12.0	24.0	48.0	172	NEMA 4,12	INTERP
CSD482412LG	12.0	24.0	48.0	172	NEMA 4,12	INTERP
A42N3609	9.3	36.0	42.0	225	NEMA 1	INTERP
A30R3016HCR	16.0	30.0	30.0	134	NEMA 3R	INTERP
A42R3012HCR	12.0	30.0	42.0	188	NEMA 3R	INTERP
CSD423610	10.0	36.0	42.0	225	NEMA 4,12	INTERP
CSD423610LG	10.0	36.0	42.0	225	NEMA 4,12	INTERP
A36R3612HCR	12.0	36.0	36.0	193	NEMA 3R	INTERP
CSD363612	12.0	36.0	36.0	193	NEMA 4,12	INTERP
CSD363612LG	12.0	36.0	36.0	193	NEMA 4,12	INTERP
A48N3609	9.3	36.0	48.0	257	NEMA 1	INTERP
A42N3013	13.3	30.0	42.0	188	NEMA 1	INTERP
CSD363016	16.0	30.0	36.0	161	NEMA 4,12	INTERP
CSD363016LG	16.0	30.0	36.0	161	NEMA 4,12	INTERP
CSD483610	10.0	36.0	48.0	257	NEMA 4,12	INTERP
CSD483610LG	10.0	36.0	48.0	257	NEMA 4,12	INTERP
A42R3612HCR	12.0	36.0	42.0	225	NEMA 3R	INTERP
CSD423612	12.0	36.0	42.0	225	NEMA 4,12	INTERP
CSD423612LG	12.0	36.0	42.0	225	NEMA 4,12	INTERP
A48N3611	11.3	36.0	48.0	257	NEMA 1	INTERP
A42N3613	13.3	36.0	42.0	225	NEMA 1	INTERP
A48R3612HCR	12.0	36.0	48.0	257	NEMA 3R	INTERP
CSD483612	12.0	36.0	48.0	257	NEMA 4,12	INTERP
CSD483612LG	12.0	36.0	48.0	257	NEMA 4,12	INTERP
A48N3613	13.3	36.0	48.0	257	NEMA 1	INTERP
A48R3616HCR	16.0	36.0	48.0	257	NEMA 3R	INTERP
CSD483616	16.0	36.0	48.0	257	NEMA 4,12	INTERP
CSD483616LG	16.0	36.0	48.0	257	NEMA 4,12	INTERP
A48N3617	17.3	36.0	48.0	246	NEMA 1	UUT 2
CSD603610	10.0	36.0	60.0	321	NEMA 4,12	INTERP
CSD603610LG	10.0	36.0	60.0	321	NEMA 4,12	INTERP
A60R3612HCR	12.0	36.0	60.0	321	NEMA 3R	INTERP
CSD603612LG	12.0	36.0	60.0	321	NEMA 4,12	INTERP
CSD603612	12.0	36.0	60.0	321	NEMA 4,12	UUT 6
NOTES:	Table continues on the next page. Additional notes, information, and seismic parameters are shown at the end of the table.					

ATTACHMENT 1: CERTIFIED SUBCOMPONENTS

SPECIAL SEISMIC CERTIFICATION

TABLE 2 - ENCLOSURES (continued)

DOCUMENT NO.: 18071CR1.1

MANUFACTURER: SCHNEIDER ELECTRIC						
PRODUCT FAMILY: TEMPERATURE CONTROL PANELS						
MODEL NUMBER	DIMENSIONS (in)			MAX. WT. (lb)	DESCRIPTION / NOTES	BASIS
	DEPTH	WIDTH	HEIGHT			
Unity - Control Panel Enclosures						
12126HC	6.0	12.0	12.0	16	NEMA 1	EXTRAP
12WX12HX6D N3R HC NK	6.0	12.0	12.0	16	NEMA 3R	EXTRAP
12166TC3R	6.0	12.0	16.0	21	NEMA 3R	UUT 4
12186HC	6.0	12.0	18.0	23	NEMA 1	INTERP
12WX18HX6D N3R HC NK	6.0	12.0	18.0	23	NEMA 3R	INTERP
RC13186	6.0	13.0	18.0	25	NEMA 1	INTERP
18186HCNK	6.0	18.0	18.0	35	NEMA 1	INTERP
18WX18HX6D N3R HC NK	6.0	18.0	18.0	35	NEMA 3R	INTERP
24246HCNK	6.0	24.0	24.0	62	NEMA 1	INTERP
24WX24HX6D N3R SDCT	6.0	24.0	24.0	62	NEMA 3R	INTERP
RC181810	10.0	18.0	18.0	35	NEMA 1	INTERP
18WX18HX10D N3R HC NK	10.0	18.0	18.0	35	NEMA 3R	INTERP
RC242410	10.0	24.0	24.0	62	NEMA 1	INTERP
24WX24HX10D N3R SDCT	10.0	24.0	24.0	62	NEMA 3R	INTERP
RC243610	10.0	24.0	36.0	92	NEMA 1	INTERP
24WX36HX10D N3R SDCT	10.0	24.0	36.0	92	NEMA 3R	INTERP
RC303610	10.0	30.0	36.0	115	NEMA 1	INTERP
30WX36HX10D N3R SDCT	10.0	30.0	36.0	115	NEMA 3R	INTERP
RC304810	10.0	30.0	48.0	133	NEMA 1	UUT 5
RC304810	10.0	30.0	48.0	153	NEMA 1	UUT 7
30WX48HX10D N3R SDCT	10.0	30.0	48.0	153	NEMA 3R	EXTRAP
MOUNTING:	Rigid wall mounted.			SEISMIC LEVELS:	$S_{DS} = 2.00g$ for $z/h = 1$ $S_{DS} = 2.23g$ for $z/h = 0$ $I_p = 1.5$	
NOTES:	Construction/Options: Carbon steel enclosure. Weight listed is the maximum allowed total weight of enclosure and subcomponents.					

ATTACHMENT 1: CERTIFIED SUBCOMPONENTS

SPECIAL SEISMIC CERTIFICATION

TABLE 3 - SUBCOMPONENTS

DOCUMENT NO.: 18071CR1.1

MANUFACTURER: SCHNEIDER ELECTRIC						
PRODUCT FAMILY: TEMPERATURE CONTROL PANELS						
MODEL NUMBER	DIMENSIONS (in)			MAX. WT. (lb)	DESCRIPTION / NOTES	BASIS
	DEPTH	WIDTH	HEIGHT			
Schneider Electric - SMARTX Controllers						
SXWASPXXX10001				0.5	Automation Server - Premium	UUT 7
SXWADBUND10002				1.6	Advanced Display	UUT 7
SXWRD16X10001				0.3	RTD-DI-16, I/O Module	UUT 7
Schneider Electric - SMARTX AS-B Controllers						
SXWASB24X10002				1.1	24 I/O	EXTRAP
SXWASB24X10001				1.1	24 I/O, BACnet, Modbus	UUT 9
SXWASB24H10001				1.1	Display, 24 I/O, BACnet, Modbus	INTERP
SXWASB24H10002				1.1	Display, 24 I/O	INTERP
SXWASB36X10001				1.1	36 I/O, BACnet, Modbus	INTERP
SXWASB36X10002				1.1	36 I/O, NO BACnet, NO Modbus	INTERP
SXWASB36H10002				1.1	Display, 36 I/O, NO BACnet, NO Modbus	INTERP
SXWASB36H10001				1.1	Display, 36 I/O, BACnet, Modbus	UUT 9
Schneider Electric - SMARTX MP-C Controllers						
SXWMPC15A10001				0.8	MP-C-15A	UUT 8
SXWMPC18A10001				0.8	MP-C-18A	INTERP
SXWIOCA10001				0.8	IP-IO-UIO5DOFA4	INTERP
SXWIOAA10001				0.7	IP-IO-DI10	INTERP
SXWIOBA10001				0.7	IP-IO-UIO10	INTERP
SXWMPC18B10001				0.8	MP-C-18B	INTERP
SXWMPC24A10001				1.1	MP-C-24A	INTERP
SXWMPC36A10001				1.2	MP-C-36A	UUT 9
SXWMPCDSP10001				0.1	MP-C-Display	UUT 9
Schneider Electric - SMARTX RP-C Controllers						
SXWRFC12A10001				1.0	Fixed - RP-C-12A-F-24V	EXTRAP
SXWRFC12B10001				1.0	Fixed - RP-C-12B-F-24V	EXTRAP
SXWRFC12C10001				1.0	Fixed - RP-C-12C-F-24V	EXTRAP
SXWRCC12A10001				1.0	Configurable - RP-C-12A-C-24V	EXTRAP
SXWRCC12B10001				1.0	Configurable - RP-C-12B-C-24V	UUT 7
SXWRCC12C10001				1.0	Configurable - RP-C-12C-C-24V	UUT 7
Schneider Electric - BACnet I/A Controllers						
MNB-70				1.1	Zone Controller	UUT 2
MNB-300				1.5	Unitary Controller	UUT 2
MNB-1000-15				1.5	Plant Controller	INTERP
MNB-1000				4.0	Remote I/O Module	UUT 2
Schneider Electric - LON I/A Zone Controllers						
MNL-10Rxx				0.6		UUT 2
MNL-15Rxx				0.6		INTERP
MNL-20Rxx				0.6		INTERP
MNL-800				0.6		UUT 2
NOTES:	Table continues on the next page. Additional notes, information, and seismic parameters are shown at the end of the table.					

ATTACHMENT 1: CERTIFIED SUBCOMPONENTS

SPECIAL SEISMIC CERTIFICATION

TABLE 3 - SUBCOMPONENTS (continued)

DOCUMENT NO.: 18071CR1.1

MANUFACTURER: SCHNEIDER ELECTRIC						
PRODUCT FAMILY: TEMPERATURE CONTROL PANELS						
MODEL NUMBER	DIMENSIONS (in)			MAX. WT. (lb)	DESCRIPTION / NOTES	BASIS
	DEPTH	WIDTH	HEIGHT			
Schneider Electric - 520 Network Controllers						
ENC-520-2-N				8.5	EnterpriseController	EXTRAP
ENC-520-2				8.5	Enterprise Controller	UUT 2
UNC-520-2-N				8.5	Universal Controller 10/100 Mbit	INTERP
UNC-520-2				8.5	Universal Controller 10/100 Mbit	UUT 2
Schneider Electric - B-LINK Controllers (differ in software only)						
B-LINK-AC				2.7		EXTRAP
B-LINK-AC-OP				2.7		UUT 6
B-LINK-AC-S				2.7		EXTRAP
B-LINK-DC				2.7		EXTRAP
B-LINK-DC-OP				2.7		EXTRAP
B-LINK-DC-S				2.7		EXTRAP
B-LINK-F-AC				2.7		EXTRAP
B-LINK-F-AC-S				2.7		EXTRAP
B-LINK-F-DC				2.7		EXTRAP
B-LINK-F-DC-S				2.7		EXTRAP
Schneider Electric - Controllers (differ in software only)						
SXWAUTSVR10001				0.7	Automation Server	UUT 5
SXWASBXXX10001				0.7	Automation Server - BACnet	EXTRAP
SXWASLXXX10001				0.7	Automation Server - LON	EXTRAP
Schneider Electric - Controllers						
SXWUI16XX10001				0.6	UI-16, I/O Module	UUT 5,7
SXWDI16XX10001				0.6	DI-16, I/O Module	UUT 5
SXWDOA12X10001				0.7	DO-FA-12, I/O Module	INTERP
SXWDOA12H10001				0.7	DO-FA-12, I/O Module	UUT 5
SXWAO8XXX10001				0.6	AO-8, I/O Module	INTERP
SXWAO8HXX10001				0.6	AO-8-H, I/O Module	INTERP
SXWAOV8XX10001				0.6	AO-V-8, I/O Module	INTERP
SXWAOV8HX10001				0.6	AO-V-8-H, I/O Module	UUT 5
SXWUI8A4X10001				0.6	UI-8/AO-4, I/O Module	INTERP
SXWUI8A4H10001				0.6	UI-8/AO-4, I/O Module	INTERP
SXWUI8A4X10001				0.6	UI-8/AO-4, I/O Module	INTERP
SXWUI8A4H10001				0.6	UI-8/AO-4, I/O Module	INTERP
SXWUI8V4X10001				0.6	UI-8/AO-V-4, I/O Module	INTERP
SXWUI8V4H10001				0.6	UI-8/AO-V-4-H, I/O Module	UUT 5
SXWUI8D4H10001				0.7	UI-8/DO-FC-4-H, I/O Module	INTERP
SXWUI8D4X10001				0.7	UI-8/DO-FC-4, I/O Module	UUT 5
Veris - Transformers						
X050CAA				2.7	50VA 120V-P, 24V	UUT 7
X100CAB				4.0	99 VA, 120V-P, 24V	UUT 7
NOTES: Table continues on the next page. Additional notes, information, and seismic parameters are shown at the end of the table.						

ATTACHMENT 1: CERTIFIED SUBCOMPONENTS

SPECIAL SEISMIC CERTIFICATION

TABLE 3 - SUBCOMPONENTS (continued)

DOCUMENT NO.: 18071CR1.1

MANUFACTURER: SCHNEIDER ELECTRIC						
PRODUCT FAMILY: TEMPERATURE CONTROL PANELS						
MODEL NUMBER	DIMENSIONS (in)			MAX. WT. (lb)	DESCRIPTION / NOTES	BASIS
	DEPTH	WIDTH	HEIGHT			
TAC (PS3) - Transformers						
T-255				1.3	20VA 120V-P, 24V	INTERP
T-201-1				2.1	50VA 120V-P, 24V	UUT 1
T-240				2.8	50VA 277V-P, 24V	INTERP
T-258				4.4	50VA 208/240V-P, 24V	INTERP
T-245				2.9	50 VA, 120/240/277/408 V-P, 24V	INTERP
T-249				3.2	50 VA, 208/240/277/408 V-P, 24V	INTERP
T-207				2.9	75 VA, 120V-P, 24V	INTERP
T-202				4.0	85 VA, 120V-P, 24V	INTERP
T-208				4.0	99 VA, 120V-P, 24V	UUT 2
Functional Devices - Transformers						
TR100VA004				4.6	100 VA, Multi-24 VAC	UUT 6
TR175VA002				7.1	175VA 120V-P, 24V	UUT 2
APC - Uninterrupted Power Supply						
UPS-SUA500PDR-S				29.3	SDU UPS, 500VA, 120VAC	UUT 6
Schneider Electric - Power Supplies						
SXWPS24VX10001				0.6	PS-24V, 24 VAC/VDC	UUT 5,7
PNL1234-PWR-IC11				7.6	INT CB 100VA DC 7.5W	UUT 8
PNL4-PWR-IC23				13.8	INT CB 200VA DC 30W	UUT 9
Schneider Electric - Panel Terminal Blocks						
PNL1-EQP-A3X				3.2	8-UIO 8-BO 3CAT5, no relay	UUT 8
PNL4-EQP-D32				6.3	28-UIO 8-BO 3CAT5, 2 relays	UUT 9
Sola - Uninterrupted Power Supplies						
SDU500				10.7	500VA, 120VAC	UUT 2
SDU500-5				11.4	500VA, 230VAC	INTERP
SDU850A				11.4	850VA, 120VAC	UUT 7
S1K320				8.8	320VA	UUT 6
S1K520				11.6	520VA	INTERP
S1K650				8.1	650VA	INTERP
S1K850				8.1	850VA	INTERP
S1K1200				10.8	1200VA	UUT 6
Functional Devices - Power Supplies						
PSMN24DAS				0.2	24VAC to 1.5-28 VDC, 300 mA	UUT 5
PSM24A24DAS				1.1	24VAC/24VDC, 300mA	UUT 2
PSM19A24DAS				1.1	120VAC/10-24VDC	UUT 7
PSMN40A24DS				1.5	120 VAC to 24 VDC, 1 Amp	UUT 5,6
PSB100AB10				3.2	100VA, 120VAC to 24 VAC	UUT 5
Veris - PS Slim Power Supplies						
PS24-S7.5W				0.3	120 VAC to 24 VDC; 7.5W	EXTRAP
PS24-S15W				0.3	120 VAC to 24 VDC; 15W	UUT 8
PS24-S30W				0.3	120 VAC to 24 VDC; 30W	INTERP
PS24-S60W				0.6	120 VAC to 24 VDC; 60W	UUT 9
PS24-S90W				0.7	120 VAC to 24 VDC; 90W	UUT 7
NOTES: Table continues on the next page. Additional notes, information, and seismic parameters are shown at the end of the table.						

ATTACHMENT 1: CERTIFIED SUBCOMPONENTS

SPECIAL SEISMIC CERTIFICATION

TABLE 3 - SUBCOMPONENTS (continued)

DOCUMENT NO.: 18071CR1.1

MANUFACTURER: SCHNEIDER ELECTRIC						
PRODUCT FAMILY: TEMPERATURE CONTROL PANELS						
MODEL NUMBER	DIMENSIONS (in)			MAX. WT. (lb)	DESCRIPTION / NOTES	BASIS
	DEPTH	WIDTH	HEIGHT			
Veris - PS Power Supplies						
PS24-7.5				0.3	120 VAC to 24 VDC; 7.5W	UUT 5
PS24-15				0.4	120 VAC to 24 VDC; 15W	INTERP
PS24-30				0.8	120 VAC to 24 VDC; 30W	INTERP
PS24-50				0.9	120 VAC to 24 VDC; 50W	INTERP
PS24-100				1.3	120 VAC to 24 VDC; 100W	UUT 5
Functional Devices - Enclosed Dual AC Power Supplies						
PSH100A100AB10				8.6	100VA, 120 to 24 VAC	UUT 5
PSH100A100A				8.6	100VA, 120 to 24 VAC	INTERP
PSH100A100AN				8.6	100VA, 120 to 24 VAC	INTERP
PSH100A100ANW				8.6	100VA, 120 to 24 VAC	INTERP
PSH100A100AW				8.6	100VA, 120 to 24 VAC	INTERP
PSH100A100ANB10				8.6	100VA, 120 to 24 VAC	INTERP
PSH100A100ANWB10				8.6	100VA, 120 to 24 VAC	INTERP
PSH100A100AWB10				8.6	100VA, 120 to 24 VAC	UUT 5
MAMAC - Power Supplies						
PS-200-1-A-3-N				2.5	24VAC/24VDC, 1.5A	UUT 6
PS-200-1-B-1-L				3.0	115VAC/24VDC, 3.0A	UUT 4
Cisco - Managed Network Switch Power Supplies						
PWR-IE50W-AC				1.4	120VAC/24VDC, Non-POE	UUT 6
PWR-IE65W-PC-AC				2.7	120VAC/54VDC, POE 3-port	INTERP
PWR-IE170W-PC-AC				3.9	120VAC/54VDC, POE 8-port	UUT 6
Cisco - Managed Network Switches						
IE-1000-4T1T-LM				1.1	5-Port, non-POE	UUT 6
IE-1000-6T2T-LM				1.3	8-Port, non-POE	INTERP
IE-1000-4P2S-LM				1.7	6-Port, 4 POE	INTERP
IE-1000-8P2S-LM				1.9	10-Port, 8 POE	INTERP
IE-2000-8TC-B				2.7	6-Port + 2 Fiber Ports, Ethernet	INTERP
IE-2000-16TC-B				4.4	16-Port + 2 Fiber Ports, Ethernet	UUT 6
Veris Industries - Network Equipment						
U013-0013				0.5	BACnet Router (MSTP to IP)	UUT 8
U013-0012				0.7	Modbus Gateway (RTU to TCP)	UUT 8
Square D - Network Equipment						
EGX150				0.4	Modbus Ethernet Gateway	UUT 8
EGX300				0.4	Modbus Gateway-Server	UUT 8
Schneider Electric - Network Equipment						
EBX510				1.0	ComX 510 Energy Server	UUT 9
Contemporary Controls - Building Automation Switch						
KEL-EIBA5-100TR				0.6	5-Port 10/100	UUT 9
Advantech Corporation - Ethernet Switches						
KEL-EKI-2525-BE				3.0	5-Port 10/100MBPS	UUT 9
KEL-EKI-2525M-AE				3.0	4-Port 10/100M-1 Fiber	UUT 9
NOTES: Table continues on the next page. Additional notes, information, and seismic parameters are shown at the end of the table.						

ATTACHMENT 1: CERTIFIED SUBCOMPONENTS

SPECIAL SEISMIC CERTIFICATION

TABLE 3 - SUBCOMPONENTS (continued)

DOCUMENT NO.: 18071CR1.1

MANUFACTURER: SCHNEIDER ELECTRIC						
PRODUCT FAMILY: TEMPERATURE CONTROL PANELS						
MODEL NUMBER	DIMENSIONS (in)			MAX. WT. (lb)	DESCRIPTION / NOTES	BASIS
	DEPTH	WIDTH	HEIGHT			
Wago - Ethernet Switches						
KEL-852-201/107-002				0.1	SFP Module for Multi-mode Fiber	UUT 9
KEL-852-111				0.8	5-Port, 10/100MBPS	UUT 9
KEL-852-103				2.0	8-Port + 2 Fiber ports	UUT 9
EtherWAN - Network Equipment						
EX78802-0VBT				3.7	Managed 6 Ports + 2 Fiber Port	UUT 6
EX73931-0VB				3.1	Managed 16 Ports + 4 Fiber Ports	UUT 6
Delta - Network Equipment						
DSM-RTR				1.0	BACnet Building Controller Router	UUT 6
Netgear - Network Equipment						
FS605				0.4	5-Port Ethernet Switch	UUT 2
GS605				0.6	5-Port Gigabit Ethernet Switch	INTERP
FS608				0.6	8-Port Ethernet Switch	INTERP
GS608				0.7	8-Port Gigabit Ethernet Switch	INTERP
FS116				2.0	16-Port Ethernet Switch	UUT 2
Phoenix Contacts - Network Equipment						
2891152				0.9	5-Port Ethernet Switch	UUT 5
Schneider Electric - Differential Pressure Transducers						
EPP301LCD				0.4	Dry media; 0-1"WC; LCD	UUT 7
EPP301				0.4	Dry media; 0-1"WC	INTERP
EPP302LCD				0.4	Dry media; 0-10"WC; LCD	INTERP
EPP302				0.4	Dry media; 0-10"WC	INTERP
EPU305LCD				0.4	Dry media; 0-10"WC; LCD	INTERP
EPU305				0.4	Dry media; 0-10"WC	UUT 7
Sentra - Differential Pressure Transducer						
264				0.6		UUT 2
Ashcroft - Differential Pressure Transmitter						
XLdp				0.9		UUT 2
Greystone - Differential Pressure Switch						
AFS-222				2.0		UUT 2
Veris Industries - Differential Pressure Transducer						
PXP				0.4	Dry Media	UUT 2
Veris Industries - Electropneumatic Transducers						
EP3030S				2.0		UUT 7
EP3031S				2.0	Vent on Power Fail	INTERP
EP3330S				2.0	Analog Output	INTERP
EP3331S				2.5	Analog Output, Vent on Power Fail	UUT 7
Veris Industries - Current Switch Relay						
H548				0.7		UUT 7
NOTES:	Table continues on the next page. Additional notes, information, and seismic parameters are shown at the end of the table.					

ATTACHMENT 1: CERTIFIED SUBCOMPONENTS

SPECIAL SEISMIC CERTIFICATION

TABLE 3 - SUBCOMPONENTS (continued)

DOCUMENT NO.: 18071CR1.1

MANUFACTURER: SCHNEIDER ELECTRIC						
PRODUCT FAMILY: TEMPERATURE CONTROL PANELS						
MODEL NUMBER	DIMENSIONS (in)			MAX. WT. (lb)	DESCRIPTION / NOTES	BASIS
	DEPTH	WIDTH	HEIGHT			
Schneider Electric - Differential Pressure Transducers						
EPP101-LCD				0.4	Dry media; 0-1"WC; LCD	UUT 5
EPP101				0.4	Dry media; 0-1"WC	INTERP
EPP102-LCD				0.4	Dry media; 0-10"WC; LCD	INTERP
EPP102				0.4	Dry media; 0-10"WC	INTERP
EPU-105-LCD				0.4	Dry media; 0-10"WC; LCD	INTERP
EPU-105				0.4	Dry media; 0-10"WC	UUT 5
EPW103-LCD				1.8	Wet media; 0-50PSIG; LCD	UUT 5
EPW103				1.8	Wet media; 0-50PSIG	INTERP
EPW104-LCD				1.8	Wet media; 0-100PSIG; LCD	INTERP
EPW104				1.8	Wet media; 0-100PSIG	INTERP
EPW105-LCD				1.8	Wet media; 0-250PSIG; LCD	INTERP
EPW105				1.8	Wet media; 0-250PSIG	UUT 5
Veris Industries - Differential Pressure Switches						
PAS01				1.5	Dry switch .08-1.2 IN WC	UUT 7
PAS02				1.5	Dry switch .2-2.0 IN WC	INTERP
PAS03				1.5	Dry switch .4-4.0 IN WC	INTERP
PAS04				1.5	Dry switch 2-8 IN WC	UUT 7
Functional Devices - Relay						
RIBMU1C				0.2	SPDT with 10-30	UUT 4
IDEC - Relays						
RH1B				0.1	SPDT Relays	UUT 1
RH2B				0.2	DPDT Relays	INTERP
RH3B				0.2	3PDT Relays	INTERP
RH4B				0.3	4PDT Relays	UUT 1
Veris Industries - Relays						
VMD1B				0.1	SPDT Relays	UUT 1,5
VMD2B				0.2	DPDT Relays	INTERP
VMD3B				0.3	3PDT Relays	INTERP
VMD4B				0.4	4PDT Relays	UUT 1,5
VST10/VST10-4				0.2	Snaptrack 10A SPDT Relay	UUT 5
VST11/VST11-4				0.2	Snaptrack 10A SPDT Relay	INTERP
VST100/VST100-4				0.2	Snaptrack 10A SPDT Relay	INTERP
VST101/VST101-4				0.2	Snaptrack 10A SPDT Relay	UUT 5
V645				0.2	SPDT 24-30VAC/DC, 10A	UUT 7
NOTES: Table continues on the next page. Additional notes, information, and seismic parameters are shown at the end of the table.						

ATTACHMENT 1: CERTIFIED SUBCOMPONENTS

SPECIAL SEISMIC CERTIFICATION

TABLE 3 - SUBCOMPONENTS (continued)

DOCUMENT NO.: 18071CR1.1

MANUFACTURER: SCHNEIDER ELECTRIC						
PRODUCT FAMILY: TEMPERATURE CONTROL PANELS						
MODEL NUMBER	DIMENSIONS (in)			MAX. WT. (lb)	DESCRIPTION / NOTES	BASIS
	DEPTH	WIDTH	HEIGHT			
Square D - Circuit Breakers						
SQD-M9F42170				0.3	0.5A	UUT 7
SQD-M9F42101				0.3	1.0A	INTERP
SQD-M9F42102				0.3	2.0A	INTERP
SQD-M9F42103				0.3	3.0A	INTERP
SQD-M9F42104				0.3	4.0A	INTERP
SQD-M9F42105				0.3	5.0A	INTERP
SQD-M9F42106				0.3	6.0A	INTERP
SQD-M9F42107				0.3	7.0A	INTERP
SQD-M9F42108				0.3	8.0A	INTERP
SQD-M9F42110				0.3	10.0A	INTERP
SQD-M9F42115				0.3	15.0A	INTERP
SQD-M9F42120				0.3	20.0A	UUT 7
Kele - Circuit Breakers						
QL-1				0.2	1.0A	UUT 4
QL-3				0.2	3.0A	INTERP
QL-4				0.2	4.0A	INTERP
QL-5				0.2	5.0A	INTERP
QL-8				0.2	8.0A	INTERP
QL-10				0.2	10.0A	INTERP
QL-15				0.2	15.0A	INTERP
QL-20				0.2	20.0A	INTERP
QL-25				0.2	25.0A	UUT 5
Ferraz-Schawmut - Fuse Holder						
USCC1				0.5	30.0A	UUT 5
Hoffman - Fluorescent Lighting						
LF120V18				1.3	Fluorescent lighting package	UUT 6
F8T5				0.1	Linear fluorescent tube	UUT 6
Tridium - JACE Controllers						
TRD-IO-16-485				1.0	16 I/O points, 8 UI, 4 DO, 4 AO	UUT 6
TRD-JACE-8000				2.0		UUT 6
TRD-NPB-8000-2X-485				1.0	Dual port RS-485 module	UUT 6
TRD-NPB-8000-LON				1.0	Single port LON FTT10A module	UUT 6
TRD-NPB-PWR-UN				2.0	600/700 UPS module: 90-263 VAC	UUT 6
MOUNTING:	Mounted within unit.			SEISMIC LEVELS:	$S_{DS} = 2.00g$ for $z/h = 1$ $S_{DS} = 2.23g$ for $z/h = 0$	
NOTES:	Construction/Options: Model number uniquely identifies manufacturer, materials, and configuration of subcomponents.					

ATTACHMENT 2: UNIT UNDER TEST SUMMARIES

SPECIAL SEISMIC CERTIFICATION

UUT 1

DOCUMENT NO.: 18071CR1.1

MANUFACTURER:		SCHNEIDER ELECTRIC				
MODEL NUMBER:		CUSTOM-8X8X6				
UNIT FUNCTION:		TEMPERATURE CONTROL PANEL				
SERIAL NUMBER:		N/A				
DIMENSIONS (in)			WEIGHT (lb)	RES. FREQ. (Hz)		
DEPTH	WIDTH	HEIGHT		F-B	S-S	V
6.0	8.0	8.0	12	N/A	N/A	N/A
CODE & CRITERIA:		2019 CBC		ICC-ES AC156		
TEST LABORATORY:		NATIONAL TECHNICAL SYSTEMS, INC.				
REPORT & DATE:		R83579		May 25, 2011		
S_{Ds} (g)	z/h	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)	
2.50	1	4.00	3.00	1.68	0.68	
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 wall mounted using (4) 3/8" Grade 8 bolts.				
CONSTRUCTION:		NEMA 3R carbon steel enclosure				
SUBCOMPONENTS:		Hoffman - Control Panel Enclosure (A8N86), TAC - Transformer (T-201-1), IDEC - Relays (RH1B, RH4B), Veris Industries - Relays (VMD1B, VMD4B)				
TESTING NOTES:		UUT 1 from test report R83579.				



By: Mohammad Aliaari

DATE: 10/19/2020



ATTACHMENT 2: UNIT UNDER TEST SUMMARIES

SPECIAL SEISMIC CERTIFICATION

UUT 2

DOCUMENT NO.: 18071CR1.1

MANUFACTURER:		SCHNEIDER ELECTRIC				
MODEL NUMBER:		CUSTOM-36X48X17				
UNIT FUNCTION:		TEMPERATURE CONTROL PANEL				
SERIAL NUMBER:		N/A				
DIMENSIONS (in)			WEIGHT (lb)	RES. FREQ. (Hz)		
DEPTH	WIDTH	HEIGHT		F-B	S-S	V
17.3	36.0	48.0	246	N/A	N/A	N/A
CODE & CRITERIA:		2019 CBC		ICC-ES AC156		
TEST LABORATORY:		NATIONAL TECHNICAL SYSTEMS, INC.				
REPORT & DATE:		R83579		May 25, 2011		
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	1.49	0.60	
2.23	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 wall mounted using (4) 3/8" Grade 8 bolts.				
CONSTRUCTION:		NEMA 1 carbon steel enclosure				
SUBCOMPONENTS:		Hoffman - Control Panel Enclosure (A48N3617), Schneider Electric - Controllers (MNB-70, MNB-300, MNB-1000, MNL-10Rxx, MNL-800, ENC-520-2, UNC-520-2), TAC - Transformer (T-208), Functional Devices - Transformer (TR175VA002), Sola - Uninterrupted Power Supply (SDU500), Functional Devices - Power Supply (PSM24A24DAS), Netgear - Network Equipment (FS605, FS116), Sentra - Differential Pressure Transducer (264), Ashcroft - Differential Pressure Transmitter (XLdp), Greystone - Differential Pressure Switch (AFS-222), Veris Industries - Differential Pressure Transducer (PXP)				
TESTING NOTES:		UUT 2 from test report R83579. 10/19/2020 The door for UUT 2 opened during the 45-degree test, so that direction is considered invalid. The test levels shown above have been reduced by a factor of 1.3 to account for orthogonality in the absence of a 45-degree test.				



ATTACHMENT 2: UNIT UNDER TEST SUMMARIES

SPECIAL SEISMIC CERTIFICATION

UUT 4

DOCUMENT NO.: 18071CR1.1

MANUFACTURER:		SCHNEIDER ELECTRIC				
MODEL NUMBER:		CUSTOM-12X16X6				
UNIT FUNCTION:		TEMPERATURE CONTROL PANEL				
SERIAL NUMBER:		N/A				
DIMENSIONS (in)			WEIGHT (lb)	RES. FREQ. (Hz)		
DEPTH	WIDTH	HEIGHT		F-B	S-S	V
6.0	12.0	16.0	21	N/A	N/A	N/A
CODE & CRITERIA:		2019 CBC		ICC-ES AC156		
TEST LABORATORY:		NATIONAL TECHNICAL SYSTEMS, INC.				
REPORT & DATE:		R91239		January 29, 2013		
S_{DS} (g)	z/h	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)	
2.50	1	4.00	3.00	1.68	0.68	
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 wall mounted using (4) 1/4" Grade 8 bolts.				
CONSTRUCTION:		NEMA 3R carbon steel enclosure				
SUBCOMPONENTS:		Unity - Control Panel Enclosure (12166TC3R), MAMAC - Power Supply (PS-200-1-B-1-L), Functional Devices - Relays (RIBMU1C), Kele - Circuit Breaker (QL-1)				
TESTING NOTES:		UUT 1 from test report R91239.				



BY: Mohammad Aliaari

DATE: 10/19/2020



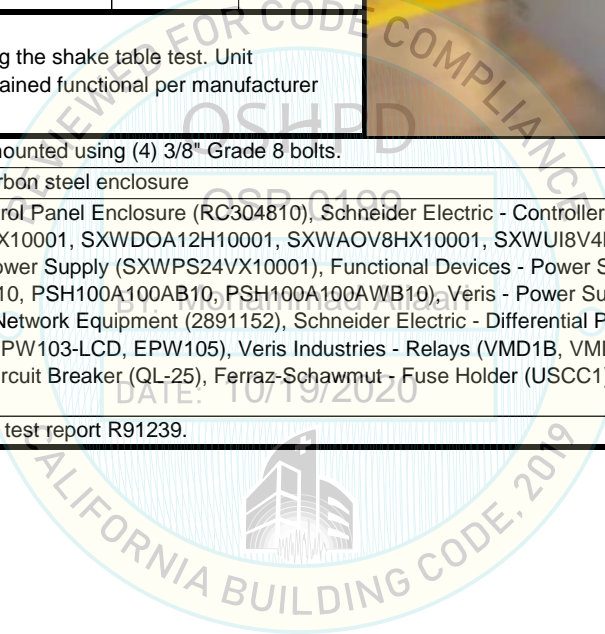
ATTACHMENT 2: UNIT UNDER TEST SUMMARIES

SPECIAL SEISMIC CERTIFICATION

UUT 5

DOCUMENT NO.: 18071CR1.1

MANUFACTURER:		SCHNEIDER ELECTRIC				
MODEL NUMBER:		CUSTOM-30X48X10				
UNIT FUNCTION:		TEMPERATURE CONTROL PANEL				
SERIAL NUMBER:		N/A				
DIMENSIONS (in)			WEIGHT (lb)	RES. FREQ. (Hz)		
DEPTH	WIDTH	HEIGHT		F-B	S-S	V
10.0	30.0	48.0	133	N/A	N/A	N/A
CODE & CRITERIA:		2019 CBC		ICC-ES AC156		
TEST LABORATORY:		NATIONAL TECHNICAL SYSTEMS, INC.				
REPORT & DATE:		R91239		January 29, 2013		
S_{DS} (g)	z/h	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)	
2.50	1	4.00	3.00	1.68	0.68	
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 wall mounted using (4) 3/8" Grade 8 bolts.				
CONSTRUCTION:		NEMA 1 carbon steel enclosure				
SUBCOMPONENTS:		Unity - Control Panel Enclosure (RC304810), Schneider Electric - Controllers (SXWUI16XX10001, SXWDI16XX10001, SXWDOA12H10001, SXWAOV8HX10001, SXWUI8V4H10001, SXWUI8D4X10001), Schneider Electric - Power Supply (SXWPS24VX10001), Functional Devices - Power Supplies (PSMN24DAS, PSMN40A24DS, PSB100AB10, PSH100A100AB10, PSH100A100AWB10), Veris - Power Supplies (PS24-7.5, PS24-100), Phoenix Contacts - Network Equipment (2891152), Schneider Electric - Differential Pressure Transducers (EPP101-LCD, EPU-105, EPW103-LCD, EPW105), Veris Industries - Relays (VMD1B, VMD4B, VST10/VST10-4, VST101/VST101-4), Kele - Circuit Breaker (QL-25), Ferraz-Schawmut - Fuse Holder (USCC1)				
TESTING NOTES:		UUT 2 from test report R91239.				



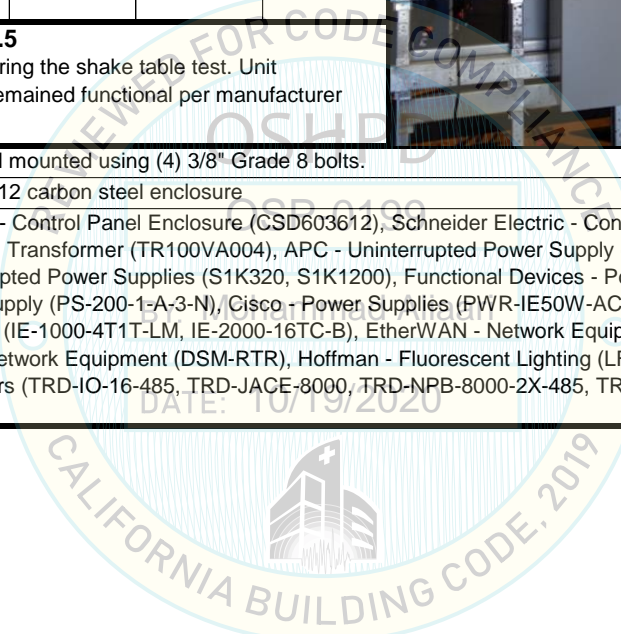
ATTACHMENT 2: UNIT UNDER TEST SUMMARIES

SPECIAL SEISMIC CERTIFICATION

UUT 6

DOCUMENT NO.: 18071CR1.1

MANUFACTURER:		SCHNEIDER ELECTRIC				
MODEL NUMBER:		CUSTOM-36X60X12				
UNIT FUNCTION:		TEMPERATURE CONTROL PANEL				
SERIAL NUMBER:		N/A				
DIMENSIONS (in)			WEIGHT (lb)	RES. FREQ. (Hz)		
DEPTH	WIDTH	HEIGHT		F-B	S-S	V
12.0	36.0	60.0	321	N/A	N/A	N/A
CODE & CRITERIA:		2019 CBC		ICC-ES AC156		
TEST LABORATORY:		ENVIRONMENTAL TESTING LABORATORY				
REPORT & DATE:		18071TR1.0		May 3, 2019		
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	1.68	0.68	
2.50	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 wall mounted using (4) 3/8" Grade 8 bolts.				
CONSTRUCTION:		NEMA 4,12 carbon steel enclosure				
SUBCOMPONENTS:		Hoffman - Control Panel Enclosure (CSD603612), Schneider Electric - Controller (B-LINK-AC-OP), Functional Devices - Transformer (TR100VA004), APC - Uninterrupted Power Supply (UPS-SUA500PDR-S), Sola - Uninterrupted Power Supplies (S1K320, S1K1200), Functional Devices - Power Supply (PSMN40A24DS), MAMAC - Power Supply (PS-200-1-A-3-N), Cisco - Power Supplies (PWR-IE50W-AC, PWR-IE170W-PC-AC), Cisco - Network Switches (IE-1000-4T1T-LM, IE-2000-16TC-B), EtherWAN - Network Equipment (EX78802-0VBT, EX73931-0VB), Delta - Network Equipment (DSM-RTR), Hoffman - Fluorescent Lighting (LF120V18, F8T5), Tridium - JACE Controllers (TRD-IO-16-485, TRD-JACE-8000, TRD-NPB-8000-2X-485, TRD-NPB-8000-LON, TRD-NPB-PWR-UN)				



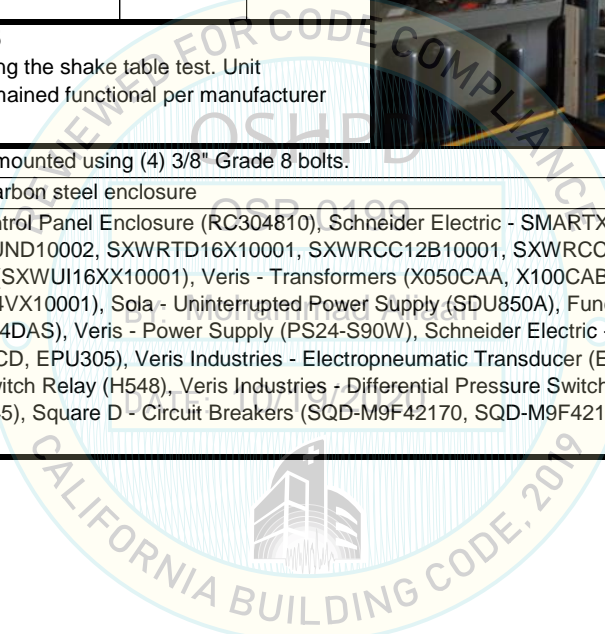
ATTACHMENT 2: UNIT UNDER TEST SUMMARIES

SPECIAL SEISMIC CERTIFICATION

UUT 7

DOCUMENT NO.: 18071CR1.1

MANUFACTURER:		SCHNEIDER ELECTRIC				
MODEL NUMBER:		CUSTOM-30X48X10				
UNIT FUNCTION:		TEMPERATURE CONTROL PANEL				
SERIAL NUMBER:		N/A				
DIMENSIONS (in)			WEIGHT (lb)	RES. FREQ. (Hz)		
DEPTH	WIDTH	HEIGHT		F-B	S-S	V
10.0	30.0	48.0	153	N/A	N/A	N/A
CODE & CRITERIA:		2019 CBC		ICC-ES AC156		
TEST LABORATORY:		ENVIRONMENTAL TESTING LABORATORY				
REPORT & DATE:		18071TR1.0		May 3, 2019		
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	1.68	0.68	
2.50	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 wall mounted using (4) 3/8" Grade 8 bolts.				
CONSTRUCTION:		NEMA 1 carbon steel enclosure				
SUBCOMPONENTS:		Unity - Control Panel Enclosure (RC304810), Schneider Electric - SMARTX Controllers (SXWASPXXX10001, SXWADBUND10002, SXWRD16X10001, SXWRCC12B10001, SXWRCC12C10001), Schneider Electric - Controller (SXWUI16XX10001), Veris - Transformers (X050CAA, X100CAB), Schneider Electric - Power Supply (SXWPS24VX10001), Sola - Uninterrupted Power Supply (SDU850A), Functional Devices - Power Supply (PSM19A24DAS), Veris - Power Supply (PS24-S90W), Schneider Electric - Differential Pressure Transducers (EPP301LCD, EPU305), Veris Industries - Electropneumatic Transducer (EP3030S, EP3331S), Veris Industries - Current Switch Relay (H548), Veris Industries - Differential Pressure Switches (PAS01, PAS04), Veris Industries - Relay (V645), Square D - Circuit Breakers (SQD-M9F42170, SQD-M9F42120)				



ATTACHMENT 2: UNIT UNDER TEST SUMMARIES

SPECIAL SEISMIC CERTIFICATION

UUT 8

DOCUMENT NO.: 18071CR1.1

MANUFACTURER:		SCHNEIDER ELECTRIC				
MODEL NUMBER:		CUSTOM-24X24X8				
UNIT FUNCTION:		TEMPERATURE CONTROL PANEL				
SERIAL NUMBER:		N/A				
DIMENSIONS (in)			WEIGHT (lb)	RES. FREQ. (Hz)		
DEPTH	WIDTH	HEIGHT		F-B	S-S	V
7.9	23.6	23.6	53	N/A	N/A	N/A
CODE & CRITERIA:		2019 CBC		ICC-ES AC156		
TEST LABORATORY:		ENVIRONMENTAL TESTING LABORATORY				
REPORT & DATE:		18071TR1.0		May 3, 2019		
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	1.68	0.68	
2.50	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 wall mounted using (4) 3/8" Grade 8 bolts.				
CONSTRUCTION:		NEMA 4 carbon steel enclosure				
SUBCOMPONENTS:		Schneider Electric - Control Panel Enclosure (SEBOX242408P), Schneider Electric - SMARTX Controllers (SXWMPC15A10001), Schneider Electric - Power Supply (PNL1234-PWR-IC11), Schneider Electric - Panel Terminal Block (PNL1-EQP-A3X), Veris - Power Supply (PS24-S15W), Veris Industries - Network Equipment (U013-0013, U013-0012), Square D - Network Equipment (EGX150, EGX300)				



DATE: 10/19/2020



ATTACHMENT 2: UNIT UNDER TEST SUMMARIES

SPECIAL SEISMIC CERTIFICATION

UUT 9

DOCUMENT NO.: 18071CR1.1

MANUFACTURER:		SCHNEIDER ELECTRIC				
MODEL NUMBER:		CUSTOM-32X39X10				
UNIT FUNCTION:		TEMPERATURE CONTROL PANEL				
SERIAL NUMBER:		N/A				
DIMENSIONS (in)			WEIGHT (lb)	RES. FREQ. (Hz)		
DEPTH	WIDTH	HEIGHT		F-B	S-S	V
9.8	31.5	39.4	109	N/A	N/A	N/A
CODE & CRITERIA:		2019 CBC		ICC-ES AC156		
TEST LABORATORY:		ENVIRONMENTAL TESTING LABORATORY				
REPORT & DATE:		18071TR1.0		May 3, 2019		
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	1.68	0.68	
2.50	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 wall mounted using (4) 3/8" Grade 8 bolts.				
CONSTRUCTION:		NEMA 4 carbon steel enclosure				
SUBCOMPONENTS:		Schneider Electric - Control Panel Enclosure (SEBOX393210P), Schneider Electric - SMARTX Controllers (SXWASB24X10001, SXWASB36H10001, SXWMPC36A10001, SXWMPCDSP10001), Schneider Electric - Power Supply (PNL4-PWR-IC23), Schneider Electric - Panel Terminal Block (PNL4-EQP-D32), Veris - Power Supply (PS24-S60W), Schneider Electric - Network Equipment (EBX510), Contemporary Controls - Building Automation Switch (KEL-EIBA5-100TR), Advantech Corporation - Ethernet Switches (KEL-EKI-2525-BE, KEL-EKI-2525M-AE), Wago - Ethernet Switches (KEL-852-201/107-002, KEL-852-111, KEL-852-103)				

