



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

APPLICATION FOR HCAI SPECIAL SEISMIC
CERTIFICATION PREAPPROVAL (OSP)

OFFICE USE ONLY

APPLICATION #: OSP-0844

HCAI Special Seismic Certification Preapproval (OSP)

Type: ☒ New ☐ Renewal

Manufacturer Information

Manufacturer: Control Air Enterprises (CAE)

Manufacturer's Technical Representative: Paul Santos

Mailing Address: 5200 E. La Palma Ave., Anaheim, CA 92807

Telephone: (714) 856-6148

Email: psantos@accsusa.com

Product Information

Product Name: Temperature Control Panels

Product Model Number(s): Varies. See Attachment

Product Category: Industrial Control Panels

Product Sub-Category: HVAC Control Panels

General Description: Customizable control panels in NEMA 1, 3R, and 4 enclosures.

Mounting Description: Wall Mounted Rigid -

Tested Seismic Enhancements: None

Applicant Information

Applicant Company Name: Pre Compliance

Contact Person: Galen Reid

Mailing Address: 36 SW Wall Street, Bend, OR 97702

Telephone: (541) 241-2310

Email: galen@go-pre.com

Title: Principal & Program Manager



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

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

Company Name: PRE COMPLIANCE

Name: Andrew Coughlin

California License Number: S6082

Mailing Address: 36 SW Wall Street, Bend, OR 97702

Telephone: (415) 635-8461

Email: Andy@go-pre.com

Certification Method

☐ GR-63-Core

☒ ICC-ES AC156

☐ IEEE 344

☐ IEEE 693

☐ NEBS 3

☐ Other (Please Specify): _____

Testing Laboratory

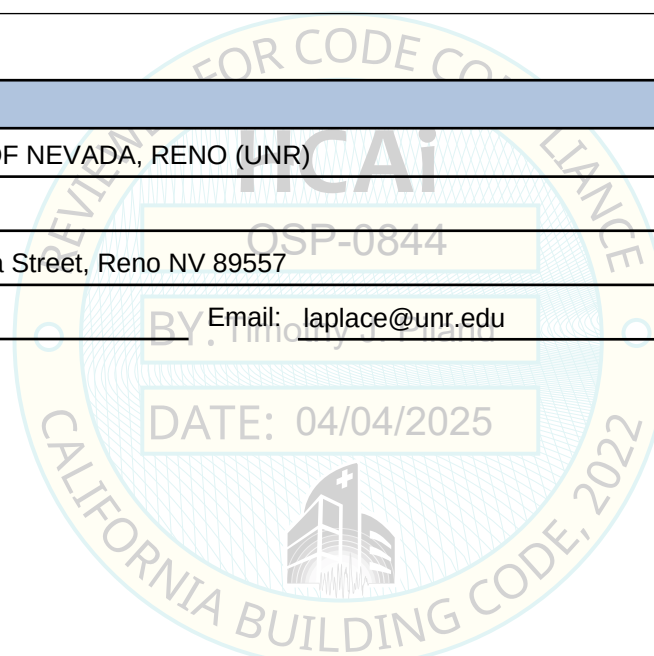
Company Name: UNIVERSITY OF NEVADA, RENO (UNR)

Contact Person: Patrick LaPlace

Mailing Address: 1664 N. Virginia Street, Reno NV 89557

Telephone: (775) 784-6937

Email: laplace@unr.edu





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

Seismic Parameters

Design Basis of Equipment or Components (F_p/W_p) = 1.50 at $z/h=1$; 1.13 at $z/h=0$

SDs (Design spectral response acceleration at short period, g) = 2.0 at $z/h=1$; 2.5 at $z/h=0$

a_p (Amplification factor) = 2.5

R_p (Response modification factor) = 6.0

Ω_0 (System overstrength factor) = 2.0

I_p (Importance factor) = 1.5

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

Natural frequencies (Hz) = See Attachment

Overall dimensions and weight = See Attachment

HCAI Approval (For Office Use Only) - Approval Expires on 04/04/2031

Date: 4/4/2025

Name: Timothy Piland

Title: Senior Structural Engineer

Special Seismic Certification Valid Up to: SDs (g) = See Above

z/h = See Above

Condition of Approval (if applicable):

SPECIAL SEISMIC CERTIFICATION CERTIFIED COMPONENTS

Manufacturer: Control Air Enterprises (CAE)
Product Type: HVAC Control Panels
Model Line: Temperature Control Panels

Seismic Parameters

$S_{DS} = 2.0g$ for $z/h=1$

$S_{DS} = 2.5g$ for $z/h=0$

$I_p = 1.5$

Building Codes

CBC 2022

TABLE 1

Mounting Configuration: Base Mounted - Rigid

Construction Summary

Welded carbon steel enclosures

Options Summary

See Table 2 for a complete listing of available subcomponents.

Model Line	Model	Max. Dimensions (in)			Max Wt. (lb)	Notes	UUT
		D	W	H			
Temperature Control Panels	16x16x7 NEMA 1	7	16	16	40		Interp.
	20x16x7 NEMA 1	7	16	20	43		Interp.
	20x16x9 NEMA 1	9	16	20	55		Interp.
	20x20x7 NEMA 1	7	20	20	60		Interp.
	20x20x9 NEMA 1	9	20	20	63		Interp.
	24x20x8 NEMA 4	8	20	24	65		Interp.
	20x24x12 NEMA 1	12	20	24	110		Interp.
	24x24x7 NEMA 1	7	24	24	85		Interp.
	24x24x6 NEMA 4	6	24	24	85		Interp.
	24x24x9 NEMA 1	9	24	24	85		Interp.
	24x24x12 NEMA 1	12	24	24	110		Interp.
	30x24x7 NEMA 1	7	24	30	97	UUT: 93 lbs.	4
	30x24x6 NEMA 4	6	24	30	97		Interp.
	30x24x9 NEMA 1	9	24	30	110		Interp.
	30x24x8 NEMA 3R	8	24	30	97	UUT: 84 lbs.	3
	30x24x8 NEMA 4	8	24	30	97		Interp.
	30x30x8 NEMA 4	8	30	30	121		Interp.
	30x30x9 NEMA 1	9	30	30	160		Interp.
	36x24x6 NEMA 4	6	24	36	125		Interp.
	36x24x9 NEMA 1	9	24	36	160		Interp.
	36x30x8 NEMA 4	8	30	36	146	UUT: 127 lbs.	2
	42x30x12 NEMA 1	12	30	42	170		Interp.
	42x30x12 NEMA 4	12	30	42	170	UUT: 170 lbs.	1

Notes: ACCS Temperature Control Panels are customizable control panels consisting of subcomponents listed in Table 2.

SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENTS

Manufacturer: Control Air Enterprises (CAE)
Product Type: HVAC Control Panels
Model Line: Temperature Control Panels

Seismic Parameters
 $S_{DS} = 2.0g$ for $z/h=1$
 $S_{DS} = 2.5g$ for $z/h=0$
 $I_p = 1.5$

Building Codes
CBC 2022

TABLE 2

Table Description: Subcomponents

Component (Manufacturer)	Model	Dimensions (in)			Wt. (lb)	Notes	UUT
		D	W	H			
Enclosures (Hammond)	N1A16167	7	16	16	30	NEMA 1	Interp.
	N1A20167	7	16	20	37	NEMA 1	Interp.
	N1A20169	9	16	20	38	NEMA 1	Interp.
	N1A20207	7	20	20	43	NEMA 1	Interp.
	N1A20209	9	20	20	47	NEMA 1	Interp.
	EN4SD24208GY	8	20	24	37	NEMA 4	Interp.
	N1A242012	12	20	24	64	NEMA 1	Interp.
	N1A24247	7	24	24	68	NEMA 1	Interp.
	N1A242412	12	24	24	70	NEMA 1	Interp.
	EN4SD24246GY	6	24	24	46	NEMA 4	Interp.
	N1A24249	9	24	24	64	NEMA 1	Interp.
	N1A30247	7	24	30	68	NEMA 1	4
	EN4SD30246GY	6	24	30	54	NEMA 4	Interp.
	N1A30249	9	24	30	78	NEMA 1	Interp.
	EN4SD30248GY	8	24	30	58	NEMA 4	Interp.
	EN4SD30308GY	8	30	30	70	NEMA 4	Interp.
	N1A30309	9	30	30	115	NEMA 1	Interp.
	EN4SD36246GY	6	24	36	62	NEMA 4	Interp.
	N1A36249	9	24	36	89	NEMA 1	Interp.
	EN4SD36308GY	8	30	36	75	NEMA 4	2
	N1A423012	12	30	42	153	NEMA 1	Interp.
	EN4SD423012GY	12	30	42	112	NEMA 4	1
Enclosure (Hoffman)	A30R248HCR	8	24	30	55	NEMA 3R	3
Back Plates (Hammond)	EP1616	0.1	14.2	14.2	5.8		Interp.
	EP2016	0.1	14.2	18.2	7.6		Interp.
	EP2020	0.1	18.2	18.2	9.7		Interp.
	EP2420	0.8	18.2	22.2	13.0		Interp.
	EP2424	0.8	22.2	22.2	16.0		Interp.
	EP3024	0.8	22.2	28.2	20.0		4
	EP3030	0.8	28.2	28.2	26.0		Interp.
	EP3624	0.8	22.2	34.2	24.0		Interp.
	EP3630	0.8	28.2	34.2	31.0		2
	EP4230	0.8	28.2	40.2	40.0		1

SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENTS

Manufacturer: Control Air Enterprises (CAE)
Product Type: HVAC Control Panels
Model Line: Temperature Control Panels

Seismic Parameters
 $S_{DS} = 2.0g$ for $z/h=1$
 $S_{DS} = 2.5g$ for $z/h=0$
 $I_p = 1.5$

Building Codes
CBC 2022

TABLE 2

Table Description: Subcomponents

Component (Manufacturer)	Model	Dimensions (in)			Wt. (lb)	Notes	UUT
		D	W	H			
Back Plate (Hoffman)	A30P24	0.8	21.0	27.0	19.0		3
Controllers (Automated Logic)	AAR	1.5	5.1	5.7	0.4		Interp.
	AMR	1.5	4.0	5.0	0.4		Interp.
	EQ-PRTL	1.5	5.0	4.0	0.6		Interp.
	FIO012U	2.1	6.9	7.0	1.1		Interp.
	FIO48U	2.1	6.9	7.0	1.1		Interp.
	FIO812U	2.1	6.9	7.0	1.1		1
	FIO88U	2.1	6.9	7.0	1.1		1
	G5CE	2.1	7.1	7.0	1.1		Interp.
	G5RE	2.1	7.1	7.0	1.1		Interp.
	OF022-E2	2.0	5.5	5.9	0.8		Interp.
	OF028-NR	2.1	12.8	7.0	2.7		Interp.
	OF141-E2	3.8	6.0	8.4	1.8		Interp.
	OF1628	2.1	12.8	7.0	2.7		Interp.
	OF1628-NR	2.1	12.8	7.0	2.7		Interp.
	OF253A-E2	2.0	4.9	7.8	1.6		Interp.
	OF253T-E2	2.0	7.8	4.9	1.6		Interp.
	OF342-E2	3.8	6.0	8.4	1.8		Interp.
	OF561-E2	2.0	7.8	4.9	1.6		Interp.
	OF561T-E2	2.0	7.8	4.9	1.6		Interp.
	OF683-E2	2.0	7.8	4.9	1.6		Interp.
	OF683T-E2	2.0	7.8	4.9	1.6		Interp.
	OF683XT-E2	2.0	7.8	5.9	1.6		2
	OFBBC	2.1	7.1	7.0	1.0		1
	OFBBC-A	2.1	7.1	7.0	1.0		Interp.
	OFBBC-NR	2.1	7.1	7.0	1.0		Interp.
	OFCSR-E2	2.0	5.5	5.9	0.8		Interp.
	OFHI-A	2.1	7.1	7.0	1.1		Interp.
	OFX48	2.1	6.9	7.0	1.1		2
	SE563A	1.5	8.3	7.0	1.1		Interp.
	SE563SP	1.5	8.3	7.0	1.1		Interp.
	SE6104A	1.5	8.3	7.0	1.1		Interp.
	SE6104SP	1.5	8.3	7.0	1.1		Interp.

SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENTS

Manufacturer: Control Air Enterprises (CAE)
Product Type: HVAC Control Panels
Model Line: Temperature Control Panels

Seismic Parameters
 $S_{DS} = 2.0g$ for $z/h=1$
 $S_{DS} = 2.5g$ for $z/h=0$
 $I_p = 1.5$

Building Codes
CBC 2022

TABLE 2

Table Description: Subcomponents

Component (Manufacturer)	Model	Dimensions (in)			Wt. (lb)	Notes	UUT
		D	W	H			
Controllers (Automated Logic)	SE6166	1.5	8.3	7.0	1.1		Interp.
	SE6166SP	1.5	8.3	7.0	1.1		4
	ZASF-A	1.5	5.1	5.7	0.6		Interp.
	ZN141A	1.5	5.1	5.7	0.6		Interp.
	ZN220	1.5	5.1	5.7	0.6		Interp.
	ZN253	1.5	5.1	5.7	0.6		Interp.
	ZN341A	1.5	5.1	5.7	0.6		Interp.
	ZN551	1.5	5.1	5.7	0.6		4
Mini Circuit Breakers (Allen Bradley)	1489-M1C050	2.9	0.7	4.4	0.3		1,2
	1489-M1C100	2.9	0.7	4.4	0.3		4
	1489-M1C150	2.9	0.7	4.4	0.3		Interp.
Dual Receptacle (Allen Bradley)	1492-REC15	3.0	2.8	4.8	3.3		1,2,4
Air Flow Switch (Cleveland Controls)	AFS-460	3.6	3.3	6.1	1.2		2
	AFS-460-DSS	3.6	3.3	6.1	1.2		3
Transformer (IDEC)	PS5R-VD24	3.7	3.5	3.0	0.8		4
Plug (Optigo)	ONS-CU-SFP	2.0	0.5	0.4	0.1		4
Edge Switch (Optigo)	ONS-CD0840GP	5.1	2.4	5.3	2.2		4
Power Supply (Optigo)	ACC-PS-48V240W	4.3	3.0	4.3	0.4		4
Relays (Schneider Electric)	70-784D14-1	1.0	3.3	2.4	0.2		1
	784XDXM4L-24A	1.1	1.6	1.5	0.2		1
	783XCX-24A	1.1	1.5	1.2	0.6		Interp.
	16-784SC	0.5	1.6	1.8	0.0		1
	70-781D5R-1A	0.7	3.3	1.2	0.2		2
	782XBXM4L-24A	1.1	1.8	0.8	0.4		Interp.
	781XAXRM4L-24A	0.5	1.1	1.6	0.2		2
	RPZR235	0.6	1.3	0.4	0.0		2
Control Transformer (Veris)	X100CAA	4.1	2.5	3.1	2.0		1,2,4



SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENTS

CBC 2022

Table Description: Subcomponents

PLX02S 1.6 3.5 4.4 0.3

J850B 4.9 10.9 5.2 11.5

OSP-0844

BY: Timothy J. Piland

DATE: 04/04/2025

The logo for the California Building Code 2022 is located at the bottom center of the page. It features a stylized building with a cross on top, set against a circular background with the text "CALIFORNIA BUILDING CODE 2022".



SPECIAL SEISMIC CERTIFICATION TESTING SUMMARY

Notes:



PRE COMPLIANCE

Pre No. CC241645-01-R0

SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

UUT 1

Test Report# TR241645-01-R0

Manufacturer: Control Air Enterprises (CAE)
Model Line: Temperature Control Panels
Model Number: 42x30x12 NEMA 4
Serial Number: N/A

Highest Passed Test Level

S_{DS}	z/h	I_p	$A_{\text{flx-h}}$	$A_{\text{rig-h}}$	$A_{\text{flx-v}}$	$A_{\text{rig-v}}$
2.0	1	1.5	3.20	2.40	1.68	0.68
2.5	0					

Dimensions/Weights

Depth (in)	Width (in)	Height (in)	Weight (lbs.)
12	30	42	170

Lowest Natural Frequency (Hz)

Front-Back	Side-Side	Vertical
N/A	N/A	N/A

Building Codes

CBC 2022

Test Criteria

ICC-ES AC156

Construction/Option Summary

Welded carbon steel enclosure

UUT Mounting Details:

List of Included Subcomponents

[illegible]

UUT was rigid wall mounted using (4) 3/8" Grade 8 bolts and flat washers.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.



COMPLIANCE

SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

Pre No. CC241645-01-R0

UUT 2

Test Report# TR241645-01-R0

Manufacturer: Control Air Enterprises (CAE)
Model Line: Temperature Control Panels
Model Number: 36x30x8 NEMA 4
Serial Number: N/A

Highest Passed Test Level

S_{DS}	z/h	I_p	$A_{\text{flx-h}}$	$A_{\text{rig-h}}$	$A_{\text{flx-v}}$	$A_{\text{rig-v}}$
2.0	1	1.5	3.20	2.40	1.68	0.68
2.5	0					

Dimensions/Weights

Depth (in)	Width (in)	Height (in)	Weight (lbs.)
8	30	36	127

Lowest Natural Frequency (Hz)

Front-Back	Side-Side	Vertical
N/A	N/A	N/A

Building Codes

CBC 2022

Test Criteria

ICC-ES AC156

Construction/Option Summary

Welded carbon steel enclosure

UUT Mounting Details:



List of Included Subcomponents

[illegible]

UUT was rigid wall mounted using (4) 3/8" Grade 8 bolts and flat washers.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

UUT 3

Test Report# TR241645-01-R0

Manufacturer: Control Air Enterprises (CAE)
Model Line: Temperature Control Panels
Model Number: 30x24x8 NEMA 3R
Serial Number: N/A

Highest Passed Test Level

S _{DS}	z/h	I _p	A _{flx-h}	A _{rig-h}	A _{flx-v}	A _{rig-v}
2.0	1	1.5	3.20	2.40	1.68	0.68
2.5	0					

Dimensions/Weights

Depth (in)	Width (in)	Height (in)	Weight (lbs.)
8	24	30	84

Lowest Natural Frequency (Hz)

Front-Back	Side-Side	Vertical
N/A	N/A	N/A

Building Codes

CBC 2022

Test Criteria

ICC-ES AC156

Construction/Option Summary

Welded carbon steel enclosure

UUT Mounting Details:



List of Included Subcomponents

Description	Model #	Wt. (lbs.)
Enclosure	A30R248HCR	55
Back Panel	A30P24	19
Air Flow Switch	AFS-460-DSS	1.2
Differential Pressure Transducers	PX3PLX01S	0.28
	PX3PLX02S	0.28

UUT was rigid wall mounted using (4) 3/8" Grade 8 bolts and flat washers.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.



PRE COMPLIANCE

SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

Pre No. CC241645-01-R0

UUT 4

Test Report# TR241645-01-R0

Manufacturer: Control Air Enterprises (CAE)
Model Line: Temperature Control Panels
Model Number: 30x24x7 NEMA 1
Serial Number: N/A

Highest Passed Test Level

S_{DS}	z/h	I_p	$A_{\text{flx-h}}$	$A_{\text{rig-h}}$	$A_{\text{flx-v}}$	$A_{\text{rig-v}}$
2.0	1	1.5	3.20	2.40	1.68	0.68
2.5	0					

Dimensions/Weights

Depth (in)	Width (in)	Height (in)	Weight (lbs.)
7	24	30	93

Lowest Natural Frequency (Hz)

Front-Back	Side-Side	Vertical
N/A	N/A	N/A

Building Codes

CBC 2022

Test Criteria

ICC-ES AC156

Construction/Option Summary

Welded carbon steel enclosure

UUT Mounting Details:



List of Included Subcomponents

[illegible]

UUT was rigid wall mounted using (4) 3/8" Grade 8 bolts and flat washers.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.