APPLICATION FOR HCAI SPECIAL SEISMIC CERTIFICATION PREAPPROVAL (OSP)

OFFICE USE ONLY

APPLICATION #: OSP-0420

HCAI Special Seismic Certification Preapproval (OSP)

Type: ☐ New ☒ Renewal

Manufacturer Information

Manufacturer: Siemens Industry, Inc.

Manufacturer's Technical Representative: Johnar Maneja

Mailing Address: 2 Gatehall Drive, Parsippany, NJ 07054

Telephone: (862) 222-3327 Email: johnar.maneja@siemens.com

Product Information

Product Name: Desigo FV2025 & FV2050 Fire Voice Alarm Control Panels

Product Model Number(s): Various (See Attachment)

Product Category: Electrical Control Panels on Life Safety/Critical Branch

Product Sub-Category: Fire Alarm & Security Panels

General Description: Fire Voice Alarm Control Panel with internal and external components as shown in the attachment.

Mounting Description: Wall Mounted Rigid

Tested Seismic Enhancements: None

Applicant Information

Applicant Company Name: Pre Compliance

Contact Person: Galen Reid

Mailing Address: 324 NW Hill St., Bend, OR 97703

Telephone: (541) 241-2310 Email: galen@go-pre.com

Title: Principal and Program Manager

HCAi OSP-0420 BY: Mohammad Karim DATE: 12/17/2025

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: 324 NW Hill St, Bend, OR 97703

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: NATIONAL TECHNICAL SYSTEMS (NTS)

Contact Person: Rathish Rao

Mailing Address: 1536 East Valencia Drive, Fullerton CA 92831

Telephone: (714) 879-6110 Email: Rathish.Rao@nts.com

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Seismic Parameters

Certified Response Spectral Acceleration Factors:(F_p/W_p)

Horizontal	(A Flx-H), g=	4.00	(A Rig-H), g=	2.69
Vertical	(A Flx-V), g=	1.67	(A Rig-V), g=	0.67

S_{DS} (Design spectral response acceleration at short period, g) = 2.50

Hf (Force amplification height factor) = 1 @ z/h = 0; 3.5 @ z/h = 1

Ru (Structure ductility redution factor) = 1 @ z/h = 0; 1.3 @ z/h = 1

I_p (Importance factor) = 1.5

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

HCAI Approval (For Office Use Only) - Approval Expires on 12/17/2031

Date: 12/17/2025

Name: Mohammad Karim Title: Supervisor, Health Facilities

Condition of Approval (if applicable):

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SPECIAL SEISMIC CERTIFICATION CERTIFIED COMPONENTS

Manufacturer: Siemens Industry, Inc.
Product Type: Fire Alarm & Security Panels
Model Line: Desigo FV2025 & FV2050 Fire Voice Alarm Control Panels

Seismic Parameters	Building Codes
S_{DS} = 2.50g for z/h=1,R_μ=1.3,H_f=3.5 S_{DS} = 2.50g for z/h=0,R_μ=1.0,H_f=1.0 I_p=1.5	CBC 2025

TABLE 1

Mounting Configuration: Wall Mounted - Rigid

Construction Summary

16 Ga carbon steel NEMA Type 1 enclosure (Red or Black). Hinged doors with key lock.

Options Summary

See Table 2 for a complete listing of certified components and options.

Model Line	Model	Max. Dimensions (in)			Wt. (lb)	Notes	UUT
		D	W	H			
Desigo FV2025 & FV2050	Three Height Enclosure	7.8	21	42	129		1
	Two Height Enclosure	6.0	21	28	52		2
	One Height Enclosure	4.5	21	15	25		3
	One Height Enclosure	4.5	21	15	23		4
	One Height Enclosure	4.5	21	15	52		5

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SPECIAL SEISMIC CERTIFICATION
CERTIFIED SUBCOMPONENTS

Manufacturer: Siemens Industry, Inc.
Product Type: Fire Alarm & Security Panels
Model Line: Desigo FV2025 & FV2050 Fire Voice Alarm Control Panels

Seismic Parameters		Building Codes
S_{DS} = 2.50g for z/h=1,R_μ=1.3,H_f=3.5 S_{DS} = 2.50g for z/h=0,R_μ=1.0,H_f=1.0	I_p=1.5	CBC 2025

TABLE 2

Table Description: Panel Components

Component (Manufacturer)	Model	Description	Notes	UUT
Three Height Enclosure (Siemens Industry, Inc.)	FHB2005-U1	Back Box		1
	FHB2005-R1	Back Box	Similar to FHB2005-U1 (color)	Interp.
	FHD2004-U1	Inner Door		1
	FHD2006-U1	Clear Lens		1
	FHD2009-U1	Blank Plate		1
	FHD2009-R1	Blank Plate	Similar to FHD2009-U1 (color)	Interp.
	FHA2042-U1	Battery Bracket		1
	FHD2007-U2	Outer Door		1
	FHD2007-R2	Outer Door	Similar to FHD2007-U2 (color)	Interp.
	FHD2007-U3	Outer Door	Similar to FHD2007-U2 (label)	Interp.
	FHD2007-R3	Outer Door	Similar to FHD2007-U2 (color,label)	Interp.
Two Height Enclosure (Siemens Industry, Inc.)	FHB2002-U1	Back Box		2
	FHB2002-R1	Back Box	Similar to FHD2002-U1 (color)	Interp.
	FHD2004-U1	Inner Door		2
	FHD2006-U1	Clear Lens		2
	FHD2003-U2	Outer Door (2 windows)		2
	FHD2003-R2	Outer Door (2 windows)	Similar to FHD2003-U2 (color)	Interp.
	FHD2002-U2	Outer Door (1 window)	Similar to FHD2003-U2 (window)	Interp.
	FHD2002-R2	Outer Door (1 window)	Similar to FHD2003-U2 (window,color)	Interp.
	FHD2003-U3	Outer Door (2 windows)	Similar to FHD2003-U2 (label)	Interp.
	FHD2003-R3	Outer Door (2 windows)	Similar to FHD2003-U2 (color,label)	Interp.
	FHD2002-U3	Outer Door (1 window)	Similar to FHD2003-U2 (window,label)	Interp.
	FHD2003-R3	Outer Door (1 window)	Similar to FHD2003-U2 (color,label)	Interp.
One Height Enclosure (Siemens Industry, Inc.)	FHB2001-U1	Back Box		3
	FHB2001-R1	Back Box	Similar to FHB2001-U1 (color)	Interp.
	FHD2012-U1	Inner Door		3
	FHD2001-U2	Outer Door		3,4
	FHD2001-R2	Outer Door	Similar to FHD2001-U2 (color)	Interp.
	FHD2001-U3	Outer Door	Similar to FHD2001-U2 (label)	Interp.
	FHD2001-R3	Outer Door	Similar to FHD2001-U2 (color, label)	Interp.
	FHB2001-U1	Back Box		4
	FHD2012-U1	Inner Door		4

Notes: **1.** Suffix "2" at end of model number represents Desigo branding label. **2.** Suffix "3" at end of model number represents Cerberus PRO branding label. **3.** Suffix "1" at end of model number represents universal component. **4.** "R"=Red **5.** "U"=Black

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UPDATE DATE: 12/17/2025
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SPECIAL SEISMIC CERTIFICATION
CERTIFIED SUBCOMPONENTS

Manufacturer: Siemens Industry, Inc.
Product Type: Fire Alarm & Security Panels
Model Line: Desigo FV2025 & FV2050 Fire Voice Alarm Control Panels

Seismic Parameters		Building Codes
S_{DS} = 2.50g for z/h=1,R_μ=1.3,H_f=3.5 S_{DS} = 2.50g for z/h=0,R_μ=1.0,H_f=1.0	I_p=1.5	CBC 2025

TABLE 2

Table Description: Panel Components

Component (Manufacturer)	Model	Description	Notes	UUT
One Height Enclosure - Booster Amp (Siemens Industry, Inc.)	EBA2001-U1	Booster Amplifier Enclosure		5
	EBA2001-R1	Booster Amplifier Enclosure	Similar to EBA2001-U1 (color)	Interp.
Panel Components (Siemens Industry, Inc.)	FCM2019-U2	Operating Unit with LED		1
	FCM2019-U3	Operating Unit with LED	Similar to FCM2019-U2 (label)	Interp.
	VTO2004-U2	Option Module Microphone		1,2
	VTO2004-U3	Option Module Microphone	Similar to VTO2004-U2 (label)	Interp.
	VTO2001-U2	Option Module 24 Switches		1,2
	VTO2001-U3	Option Module 24 Switches		Interp.
	FCM2022-U2	Blank Option Module		1,2
	FCM2022-U3	Blank Option Module		Interp.
	FHA2031-U1	Optional DIN Rail Module		1
	FCI2017-U1	Periphery Board (504 point)		1
	FP2013-U1	600W Power Supply Set		1
	VCA2002-A1	Voice Card Cage (up to 4 VCI2001-A1 Amp Cards)		1
	VCC2001-A1	Voice CPU Card		1
	VCC2002-A1	Voice I/O Card		1
	VCI2003-A1	VoIP Module		1
	VCI2001-A1	Voice Amplifier Card (25V/70V)		1
	VN2001-A1	Ethernet Module Electric or (VN2002-A1 Multi-mode/VN2003A1 Single-mode Ethernet modules)		1
	FCA2031-U1	Connection Module (MoNet)		1,2
	BTX-1	24V 33AH Battery Set		1
	FCA2032-U1	Battery Disconnect Module		1
	FCM2018-U2	Operating Unit		2
	FCM2018-U3	Operating Unit	Similar to FCM2018-U2 (label)	Interp.

Notes: **1.** Suffix "2" at end of model number represents Desigo branding label. **2.** Suffix ”3” at end of model number represents Cerberus PRO branding label. **3.** Suffix ”1” at end of model number represents universal component. **4.** Suffix "A" at end of model number represents global product **5.** “R”=Red **6.** “U”=Black

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SPECIAL SEISMIC CERTIFICATION
CERTIFIED SUBCOMPONENTS

Manufacturer: Siemens Industry, Inc.
Product Type: Fire Alarm & Security Panels
Model Line: Desigo FV2025 & FV2050 Fire Voice Alarm Control Panels

Seismic Parameters		Building Codes
S_{DS} = 2.50g for z/h=1,R_μ=1.3,H_f=3.5 S_{DS} = 2.50g for z/h=0,R_μ=1.0,H_f=1.0	I_p=1.5	CBC 2025

TABLE 2

Table Description: Panel Components

Component (Manufacturer)	Model	Description	Notes	UUT
Panel Components (Siemens Industry, Inc.)	FN2012-U1	Ethernet Switch module		2
	VTA2001-A1	Remote Terminal Board		2
	FTI2001-U1	Fire Terminal Board		2
	FT2015-U2	Remote Display Terminal (3-buttons)		3
	FT2015-R2	Remote Display Terminal (3-buttons)	Similar to FT2015-U2 (color)	Interp.
	FT2014-U2	Remote Display Terminal (1-button)	Similar to FT2015-U2 (# of buttons)	Interp.
	FT2014-R2	Remote Display Terminal (1-button)	Similar to FT2015-U2 (# of buttons, color)	Interp.
	FT2015-U3	Remote Display Terminal (3-buttons)	Similar to FT2015-U2 (label)	Interp.
	FT2015-R3	Remote Display Terminal (3-buttons)	Similar to FT2015-U2 (color, label)	Interp.
	FT2014-U3	Remote Display Terminal (1-button)	Similar to FT2015-U2 (# of buttons, label)	Interp.
	FT2014-R3	Remote Display Terminal (1-button)	Similar to FT2015-U2 (# of buttons, color)	Interp.
	FT2003-U1	Graphics In/Out Driver		4

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Notes: **1.** Suffix "2" at end of model number represents Desigo branding label. **2.** Suffix ”3” at end of model number represents Cerberus PRO branding label. **3.** Suffix ”1” at end of model number represents universal component. **4.** Suffix "A" at end of model number represents global product **5.** “R”=Red **6.** “U”=Black

SPECIAL SEISMIC CERTIFICATION TESTING SUMMARY

UUT	Model	Test Report	Test Date	Test Laboratory	S_{DS}	z/h	R_μ	H_f	I_p
1	Desigo FV2025 & FV2050 (Three Height Enclosure)	PR032091	10/14/2014	NTS Fullerton	2.5 2.5	1 0	1.3 1.0	3.5 1.0	1.5
2	Desigo FV2025 & FV2050 (Two Height Enclosure)	PR032091	10/14/2014	NTS Fullerton	2.5 2.5	1 0	1.3 1.0	3.5 1.0	1.5
3	Desigo FV2025 & FV2050 (One Height Enclosure)	PR032091	10/14/2014	NTS Fullerton	2.5 2.5	1 0	1.3 1.0	3.5 1.0	1.5
4	Desigo FV2025 & FV2050 (One Height Enclosure)	PR032091	10/14/2014	NTS Fullerton	2.5 2.5	1 0	1.3 1.0	3.5 1.0	1.5
5	Desigo FV2025 & FV2050 (One Height Enclosure-Booster Amp)	PR032091	10/14/2014	NTS Fullerton	2.5 2.5	1 0	1.3 1.0	3.5 1.0	1.5

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Notes:

SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

UUT 1 Test Report# PR032091

Manufacturer: Siemens Industry, Inc.
Model Line: Desigo FV2025 & FV2050 Fire Voice Alarm Control Panels
Model Number: Three Height Enclosure

Highest Passed Test Level

S_{DS}	z/h	R_μ	H_f	I_p	A_{flx-h}	A_{rig-h}	A_{flx-v}	A_{rig-v}
2.50	1.0	1.3	3.5	1.5	4.00	2.69	1.67	0.67
2.50	0.0	1.0	1.0					

Dimensions/Weights

Depth (in)	Width (in)	Height (in)	Weight (lbs.)
7.8	21	42	129

Lowest Natural Frequency (Hz)

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

Building Codes

CBC 2025

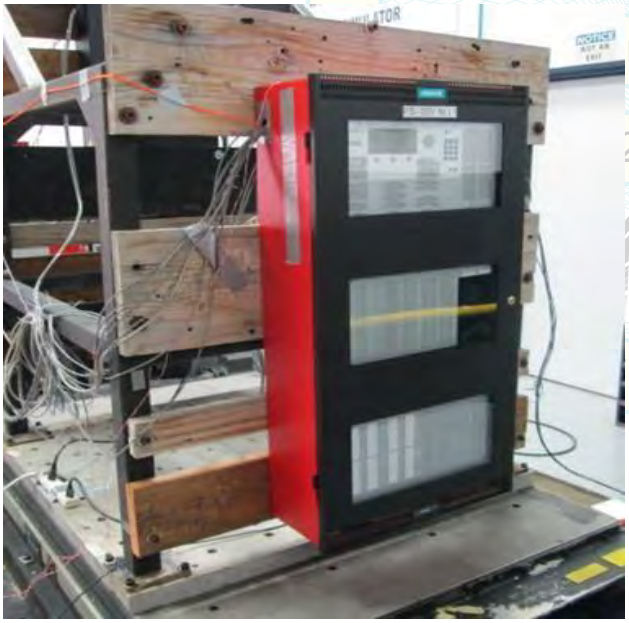
Test Criteria

ICC-ES AC156-24

Construction/Option Summary

16 Ga carbon steel NEMA Type 1 enclosure (Red). Panel components are carbon steel. Hinged doors with key lock.

UUT Mounting Details:



UUT was rigid wall mounted using (7) 5/16" Grade 8 bolts.
Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

List of Included Subcomponents

Description[1]	Model
Back Box	FHB2005-U1
Inner Door	FHD2004-U1
Clear Lens	FHD2006-U1
Blank Plate	FHD2009-U1
Battery Bracket	FHA2042-U1
Outer Door	FHD2007-U2
Operating Unit with LED	FCM2019-U2
Option Module Microphone	VTO2004-U2
Option Module 24 Switches	VTO2001-U2
Blank Option Module	FCM2022-U2
Optional DIN Rail Module	FHA2031-U1
Periphery Board (504 point)	FCI2017-U1
600W Power Supply Set	FP2013-U1
Voice Card Cage	VCA2002-A1
Voice CPU Card	VCC2001-A1
Voice I/O Card	VCC2002-A1
VoIP Module	VCI2003-A1
Voice Amplifier Card (25V/70V)	VCI2001-A1
Ethernet Module Electric	VN2001-A1
Connection Module (MoNet)	FCA2031-U1
24V 33AH Battery Set	BTX-1
Battery Disconnect Module	FCA2032-U1

[1]All Subcomponents manufactured by Siemens Industry, Inc.

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SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

UUT 2 Test Report# PR032091

Manufacturer: Siemens Industry, Inc.
Model Line: Desigo FV2025 & FV2050 Fire Voice Alarm Control Panels
Model Number: Two Height Enclosure

Highest Passed Test Level

S_{DS}	z/h	R_μ	H_f	I_p	A_{flx-h}	A_{rig-h}	A_{flx-v}	A_{rig-v}
2.50	1.0	1.3	3.5	1.5	4.00	2.69	1.67	0.67
2.50	0.0	1.0	1.0					

Dimensions/Weights

Depth (in)	Width (in)	Height (in)	Weight (lbs.)
6	21	28	52

Lowest Natural Frequency (Hz)

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

Building Codes

CBC 2025

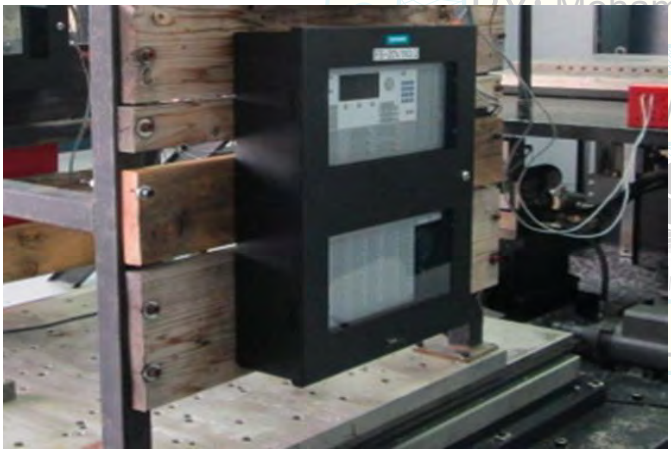
Test Criteria

ICC-ES AC156-24

Construction/Option Summary

16 Ga carbon steel NEMA Type 1 enclosure (Black). Panel components are carbon steel. Hinged doors with key lock.

UUT Mounting Details:



UUT was rigid wall mounted using (6) 5/16" Grade 8 bolts.
Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

List of Included Subcomponents

Description[1]	Model
Back Box	FHB2002-U1
Inner Door	FHD2004-U1
Clear Lens	FHD2006-U1
Outer Door (2 windows)	FHD2003-U2
Option Module Microphone	VTO2004-U2
Option Module 24 Switches	VTO2001-U2
Blank Option Module	FCM2022-U2
Connection Module (MoNet)	FCA2031-U1
Operating Unit	FCM2018-U2
Ethernet Switch module	FN2012-U1
Remote Terminal Board	VTA2001-A1
Fire Terminal Board	FTI2001-U1

[1]All Subcomponents manufactured by Siemens Industry, Inc.

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SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

UUT 3 Test Report# PR032091

Manufacturer: Siemens Industry, Inc.
Model Line: Desigo FV2025 & FV2050 Fire Voice Alarm Control Panels
Model Number: One Height Enclosure

Highest Passed Test Level

S_{DS}	z/h	R_μ	H_f	I_p	A_{flx-h}	A_{rig-h}	A_{flx-v}	A_{rig-v}
2.50	1.0	1.3	3.5	1.5	4.00	2.69	1.67	0.67
2.50	0.0	1.0	1.0					

Dimensions/Weights

Depth (in)	Width (in)	Height (in)	Weight (lbs.)
4.5	21	15	25

Lowest Natural Frequency (Hz)

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

Building Codes

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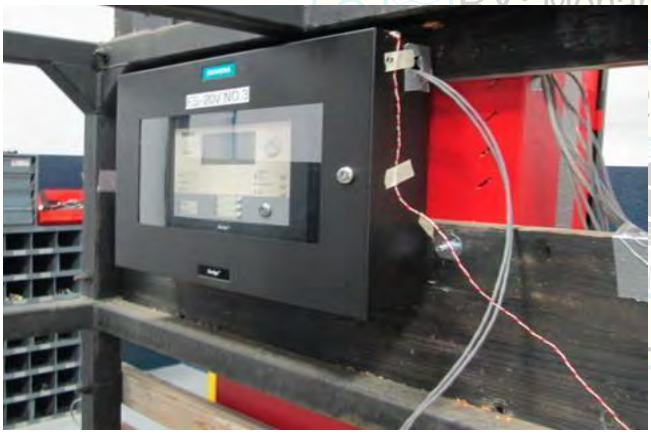
Test Criteria

ICC-ES AC156-24

Construction/Option Summary

16 Ga carbon steel NEMA Type 1 enclosure (Black). Panel components are carbon steel. Hinged doors with key lock.

UUT Mounting Details:



UUT was rigid wall mounted using (4) 5/16" Grade 8 bolts.
Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

List of Included Subcomponents

Description[1]	Model
Back Box	FHB2001-U1
Inner Door	FHD2012-U1
Outer Door	FHD2001-U2
Remote Display Terminal (3-buttons)	FT2015-U2

[1]All Subcomponents manufactured by Siemens Industry, Inc.

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SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

UUT 4 Test Report# PR032091

Manufacturer: Siemens Industry, Inc.
Model Line: Desigo FV2025 & FV2050 Fire Voice Alarm Control Panels
Model Number: One Height Enclosure

Highest Passed Test Level

S_{DS}	z/h	R_μ	H_f	I_p	A_{flx-h}	A_{rig-h}	A_{flx-v}	A_{rig-v}
2.50	1.0	1.3	3.5	1.5	4.00	2.69	1.67	0.67
2.50	0.0	1.0	1.0					

Dimensions/Weights

Depth (in)	Width (in)	Height (in)	Weight (lbs.)
4.5	21	15	23

Lowest Natural Frequency (Hz)

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

Building Codes

CBC 2025

Test Criteria

ICC-ES AC156-24

Construction/Option Summary

16 Ga carbon steel NEMA Type 1 enclosure (Black). Panel components are carbon steel. Hinged doors with key lock.

UUT Mounting Details:



UUT was rigid wall mounted using (4) 5/16" Grade 8 bolts.
Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

List of Included Subcomponents

Description[1]	Model
Back Box	FHB2001-U1
Inner Door	FHD2012-U1
Outer Door	FHD2001-U2
Graphics In/Out Driver	FT2003-U1

[1]All Subcomponents manufactured by Siemens Industry, Inc.

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SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

UUT 5 Test Report# PR032091

Manufacturer: Siemens Industry, Inc.
Model Line: Desigo FV2025 & FV2050 Fire Voice Alarm Control Panels
Model Number: One Height Enclosure (Booster Amp)

Highest Passed Test Level

S_{DS}	z/h	R_μ	H_f	I_p	A_{flx-h}	A_{rig-h}	A_{flx-v}	A_{rig-v}
2.50	1.0	1.3	3.5	1.5	4.00	2.69	1.67	0.67
2.50	0.0	1.0	1.0					

Dimensions/Weights

Depth (in)	Width (in)	Height (in)	Weight (lbs.)
4.5	21	15	52

Lowest Natural Frequency (Hz)

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

Building Codes

CBC 2025

Test Criteria

ICC-ES AC156-24

Construction/Option Summary

16 Ga carbon steel NEMA Type 1 enclosure (Black). Panel components are carbon steel. Hinged doors with key lock.

UUT Mounting Details:



UUT was rigid wall mounted using (4) 5/16" Grade 8 bolts.
Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

List of Included Subcomponents

Description[1]	Model
Booster Amplifier Enclosure	EBA2001-U1

[1]All Subcomponents manufactured by Siemens Industry, Inc.

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