APPLICATION FOR HCAI SPECIAL SEISMIC CERTIFICATION PREAPPROVAL (OSP)

OFFICE USE ONLY

APPLICATION #: OSP-0920

HCAI Special Seismic Certification Preapproval (OSP)

Type: [X] New [ ] Renewal

Manufacturer Information

Manufacturer: Otis Elevator Company

Manufacturer's Technical Representative: Mohammad Abbasi

Mailing Address: 1500 Otis Way, Florence, SC 29501

Telephone: (843) 432-4100 Email: certificate@otis.com

Product Information

Product Name: Global Control System II (GCSII) Controller Assemblies

Product Model Number(s): See Attachment 1, Tables 1 & 2

Product Category: Elevator Equipment

Product Sub-Category: Elevator Controllers

General Description: Elevator controller assemblies that receive dispatch commands, control elevator car floor movement, and contain elevator motor drive and brake electronics.

Mounting Description: Base Mounted Rigid

Tested Seismic Enhancements: Seismic enhancements made to the test units and/or modifications required to address anomalies during the tests shall be incorporated into the production units.

Applicant Information

Applicant Company Name: EASE LLC

Contact Person: Jonathan Roberson

Mailing Address: 5877 Pine Ave., Suite 210, Chino Hills, CA 91709

Telephone: (909) 606-7622 Email: jon@easeco.com

Title: Principal Structural Engineer

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BY: [illegible]
DATE: 10/12/2026
CALIFORNIA BUILDING CODE, 2025

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

Company Name: EASE LLC

Name: Jonathan Roberson California License Number: S4197

Mailing Address: 5877 Pine Ave., Suite 210, Chino Hills, CA 91709

Telephone: (951) 295-1892 Email: jon@EASECo.com

Certification Method

☐ GR-63-Core ☒ ICC-ES AC156 ☐ IEEE 344 ☐ IEEE 693 ☐ NEBS 3

☐ Other (Please Specify):

Testing Laboratory

Company Name: ENVIRONMENTAL TESTING LABORATORIES, INC. (ETL)

Contact Person: Jeremy Lange

Mailing Address: 11034 Indian Trail, Dallas TX 75229-3513

Telephone: (972) 247-9657 Email: jeremy@etldallas.com

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Seismic Parameters

Certified Response Spectral Acceleration Factors:(F_p/W_p)

Horizontal	(A Flx-H), g=	3.20	(A Rig-H), g=	2.15
Vertical	(A Flx-V), g=	1.68	(A Rig-V), g=	0.68

S_{DS} (Design spectral response acceleration at short period, g) = 2.50 @ z/h = 0; 2.00 @ z/h = 1

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 10/12/2032

Date: 10/12/2026

Name: Mohammad Karim Title: Supervisor, Health Facilities

Condition of Approval (if applicable):

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ATTACHMENT 1: CERTIFIED COMPONENTS

TABLE 1:

BUILDING CODE: 2025 CBC

Manufacturer	**Otis Elevator Company**
Product Line	**GLOBAL CONTROL SYSTEM II (GCSII)**
Product Type	**Elevator Components**

Seismic Parameters

S_{DS} = 2.0g at z/h = 1 R_μ = 1.3; H_f = 3.5

S_{DS} = 2.5g at z/h = 0 R_μ = 1.0; H_f = 1.0

COMPONENT	MODEL NO.	DIMENSIONS (IN.) W	D	H	APPROX. WT. (LB.)	MOUNT	BASIS [1]
GCSII Controller Assembly (480 VAC) w/ Elevator Controller, Brake, 90A (480 VAC) Drive & Transformer Box (Empty)	ACA21310AD33 [2]	40.9	13.6	69.5	477	Rigid Base	UUT-2502-5
GCSII Controller Assembly (208 VAC) w/ Elevator Controller, Brake, 60A (208 VAC) Drive & Transformer Box (Empty)	ACA21310AD32 [2]	40.9	13.6	69.5	477	Rigid Base	INT
GCSII Controller Assembly (208 VAC) w/ Elevator Controller, Brake, 60A (480 VAC) Drive & Transformer Box (26.2kVA; 208→480VAC)	ACA21310AD10 [2]	40.9	13.6	69.5	696	Rigid Base	INT
GCSII Controller Assembly (208 VAC) w/ Elevator Controller, Brake, 60A (208 VAC) Drive & Transformer Box (26.2kVA; 208→480VAC)	ACA21310ADXX [2][3]	40.9	13.6	69.5	696	Rigid Base	UUT-2502-6
GCS Controller Assembly (480 VAC) w/ Elevator Controller, Brake, 60A Drive & Transformer Box (Empty)	*ABA21310AD4 [4][5]*	*40.9*	*13.6*	*69.5*	*544*	*Rigid Base*	*UUT-2101-3*

Mount	RIGID BASE: free-standing, base-mounted tower configuration with the component rigidly attached to a supporting structure and no lateral support above the base.
Notes	1. BASIS: • UUT-#: Indicates that a test specimen matching these characteristics was tested. See Attachment 2. • INT (Interpolated or Extrapolated): indicates a model not specifically tested, by which seismic qualification was established through evaluation of testing of similar models in the product line. 2. Requires use of seismic kits: P/N: AFA21305BN439 and P/N: AGA21305BL406. 3. Custom configuration created for testing. 4. *Gray italic formatting indicates component is not part of GCSII Controller Assemblies but is included as basis for seismic qualification only.* 5. *Requires use of seismic kits: P/N: AEB21305BN439 and P/N: AFA21305BL406* 6. Special Seismic Certification is limited to subcomponents listed in Table 2 and those tested subcomponents meeting exceptions of CBC §1705A.14.3.1 7. Configurations determined by subcomponents listed in Table 2.

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TABLE 2: Seismic Certified Subcomponents

SUBCOMPONENT	MANUFACTURER	PART NO.	DESCRIPTION	BASIS
CONTROLLER ASSEMBLY	Otis	AFA21305BN	Elevator Controller Assembly	UUT-2502-5 UUT-2502-6
Power Supplies				
24VDC Switching Power Supply	Meanwell	AAA621AT49	Adjustable 24VDC Switching Power Supply; 120W; 85V to 264V Input; Enclosed Frame	UUT-2502-6
24VDC Switching Power Supply	Meanwell	AAA621AT48	Adjustable 24VDC Switching Power Supply; 240W; 90V to 264V Input; Enclosed Frame	UUT-2502-5
24VDC Switching Power Supply	Siemens	AAA621AT14	Adjustable 24VDC Switching Power Supply; 240W; 85V to 264V Input; Enclosed Frame	UUT-2101-3
Batteries				
12V Battery (5AH)	Vision	AAA718E25	12V; 5AH	UUT-2502-5 UUT-2502-6
12V Battery (5AH)	Powersonic	AAA718E25	12V; 4.5AH; Sealed Lead Acid Battery	UUT-2502-5 UUT-2502-6
BRAKE BOX ASSEMBLY	Otis	AGA21305BL	Brake Assembly	UUT-2502-5 UUT-2502-6
Power Distribution Transformers				
480VAC Transformer Rating: 1.65kVA	Pacific Transformer	AAA225MV5	Primary: 440-480VAC; 50/60Hz; 3Ø; Rating: 1.65kVA; Control system power	UUT-2502-5
480VAC Transformer Rating: 1.0kVA	Pacific Transformer	AAA225MV1	Primary: 440-480VAC; 50/60Hz; 3Ø; Rating: 1.0kVA; Control system power	INT
208VAC Transformer Rating: 1.0kVA	Pacific Transformer	AAA225MV2	Primary: 208-240VAC; 50/60Hz; 3Ø; Rating: 1.0kVA; Control system power	INT
208VAC Transformer Rating: 1.65kVA	Pacific Transformer	AAA225MV6	Primary: 208-240VAC; 50/60Hz; 3Ø; Rating: 1.65kVA; Control system power	UUT-2502-6

Table continues next page

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TABLE 2: Seismic Certified Subcomponents

SUBCOMPONENT	MANUFACTURER	PART NO.	DESCRIPTION	BASIS
TRANSFORMER BOX ASSEMBLIES / UPSTAND BOXES				
TRANSFORMER BOX ASSEMBLY	Otis	AEA21305BR1	Empty transformer box upstand (Upstand Box)	UUT-2502-5
TRANSFORMER BOX ASSEMBLY	Otis	AEA21305BR4	Transformer Box Assembly w/ Transformer	UUT-2502-6
Building Power Transformer (208V to 480V)	Grand Transformer	ABA225LY3	Transformer: Primary 208-240VAC; Secondary 480VAC; Power: 26.2kVA transformer	UUT-2502-6
Fuse (60A, 600V)	LittleFuse	AAA375BZ67	60 Amp; 600V; Time Delay Fuse	UUT-2502-6
Fuse (60A, 600V)	Mersen	AAA375BZ67	60 Amp; 600V; Time Delay Fuse	UUT-2502-6
DRIVE ASSEMBLIES				
GCS 409A DRIVE 90A (480V)	Otis	WAA21310B5	Drive Assembly Volt: 208VAC; Output Current: 60A rms	UUT-2502-5
60A R3 REGEN DRIVE (480V)	Otis	KCA21310ABR5	Drive Assembly Volt: 480VAC; Output Current: 32A rms	INT
60A R3 REGEN DRIVE (208V)	Otis	KCA21310ABR6	Drive Assembly Volt: 480VAC; Output Current: 32A rms	UUT-2502-6

Notes

1. BASIS:
   - UUT-#: Indicates that a test specimen matching these characteristics was tested.
   - INT (Interpolated or Extrapolated): indicates a subcomponent not specifically tested, by which seismic qualification was established through evaluation of testing of similar subcomponents in the product line.
2. Certification in this table is limited to the listed subcomponents when installed as part of a complete assembly of the components defined in Table 1.

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UUT-2502-5 GCSII Controller Assembly 480VAC 90A w/ Transformer Box (Empty)

Manufacturer: Otis Elevator Company

Identification: Model No.: ACA21310AD33 Serial No.: 4025FPM100J9G

Description: GCSII Elevator Controller Assembly (Otis Config. No.: PM100J9G)

Includes the following sub-components:

Item	Manufacturer	Part No.
CONTROLLER ASSEMBLY	Otis	AFA21305BN
Adjustable 24VDC Switching Power Supply 240W	Meanwell	AAA621AT48
12V; 5AH; Sealed Lead Acid Battery	Vision	AAA718E25
12V; 4.5AH; Sealed Lead Acid Battery (Qty: 4)	Powersonic	AAA718E25
BRAKE BOX ASSEMBLY	Otis	AGA21305BL
Transformer Primary: 480VAC; 50/60Hz; 3Ø; Rating: 1.65kVA	Pacific Transformer	AAA225MV5
TRANSFORMER BOX ASSEMBLY (Empty)	Otis	AEA21305BR1
GCS 409A Drive 90A (480V) (S/N: JCB5----24350005)	Otis	WAA21310B5

Seismic Kits (by Otis): P/N: AFA21305BN439 and P/N: AGA21305BL406



Mounting: Rigid Base (Floor) mounted with (4) 1/2" dia. SAE J429 GR 5 Hex Bolts w/ Washers through (2) mounting brackets P/N: AAA316HJR3

Dimensions (in.)				Lowest Resonant Frequency (Hz)		
Width	Depth	Height	Weight [lb]	Front - Axis	Side - Axis	Vert - Axis
40.9	13.6	69.5	477	8.42	17.76	46.69

ICC-ES AC156 (24) 2nd Edition Test Parameters **Building Code: 2025 CBC**

S_{DS} (g)	z/h	R_μ	H_f	I_P	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)
2.54	1	1.3	3.5	1.5	3.20	2.74	1.70	0.69

Unit satisfied AC156 requirements for structural integrity and manufacturer requirements for functionality after AC156 test.

UUT-2502-6 GCSII Controller Assembly 208VAC 60A w/ Transformer Box (26.2kVA)

Manufacturer: Otis Elevator Company

Identification: Model No.: ACA21310ADXX* Serial No.: None

Description: GCSII Elevator Controller Assembly (Otis Config. No.: PM100J9I)

*This is a custom configured unit combining Model No. ACA21310AD32 with a 26.2 kVA 208-to-480VAC transformer.

Includes the following sub-components:

Item	Manufacturer	Part No.
CONTROLLER ASSEMBLY	Otis	AFA21305BN
Adjustable 24VDC Switching Power Supply 120W	Meanwell	AAA621AT49
12V; 5AH; Sealed Lead Acid Battery	Vision	AAA718E25
12V; 4.5AH; Sealed Lead Acid Battery (Qty: 4)	Powersonic	AAA718E25
BRAKE BOX ASSEMBLY	Otis	AGA21305BL
Transformer Primary: 208VAC; 50/60Hz; 3Ø; Rating: 1.65kVA	Pacific Transformer	AAA225MV6
TRANSFORMER BOX ASSEMBLY	Otis	AAA21305BR4
Building power xfmr (26.2kVA; prim. 208-240V; secondary 480V)	Otis	ABA225LY3
Fuse (60A; 600V)	LittleFuse	AAA375BZ67
Fuse (60A; 600V)	Mersen	AAA375BZ67
60A R3 REGEN DRIVE (208V) (S/N: JCABR5--25210020)	Otis	KCA21310ABR6

Seismic Kits (by Otis): P/N: AFA21305BN439 and P/N: AGA21305BL406



Mounting: Rigid Base (Floor) mounted with (4) 1/2" dia. SAE J429 GR 5 Hex Bolts w/ Washers through (2) mounting brackets P/N: AAA316HJR3

Dimensions (in.)				Lowest Resonant Frequency (Hz)		
Width	Depth	Height	Weight [lb]	Front - Axis	Side - Axis	Vert - Axis
40.9	13.6	69.5	696	8.59	17.21	13.03

ICC-ES AC156 (24) 2nd Edition Test Parameters **Building Code: 2025 CBC**

S_{DS} (g)	z/h	R_μ	H_f	I_P	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)
2.54	1	1.3	3.5	1.5	3.20	2.74	1.70	0.69

Unit satisfied AC156 requirements for structural integrity and manufacturer requirements for functionality after AC156 test.

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UUT-2101-3 GCS Controller Assembly 480VAC 60A

Manufacturer: Otis Elevator Company

Identification: Model No.: ABA21310AD4 Serial No.: 4920FSP825J1

Description GCS Controller Assembly (480 VAC) w/ Elevator Controller, Brake, 60A Drive & Transformer Box (Empty)

Includes the following sub-components:

Item	Manufacturer	Part No.
60A R3 REGEN DRIVE (480V) (S/N: CGJABR0520350027)	Otis	KCA21310ABR5
BRAKE BOX ASSEMBLY	Otis	AFA21305BL
Transformer Primary: 480VAC; 50/60Hz; 3Ø; Rating: 1.0kVA	Grand Transformer	AAA225MV1
CONTROLLER ASSEMBLY	Otis	AEB21305BN
Adjustable 24VDC Switching Power Supply	Siemens	AAA621AT14
12V; 7AH; Sealed Lead Acid Battery (Qty 4)	Leoch	AAA718E14
12V; 4AH; Sealed Lead Acid Battery	Leoch	AAA718E3
TRANSFORMER BOX ASSEMBLY (Empty Box Only)	Otis	AEA21305BR1
SEISMIC KITS:	Otis	AEB21305BN439 & AFA21305BL406

Mounting: Rigid Base (Floor) mounted using (4) – 1/2" dia. SAE J429 Grade 5 Hex Head Bolts w/ Standard Washers through (2) mounting brackets P/N: AAA316HJR3



Dimensions (in.)				Lowest Resonant Frequency (Hz)		
Width	Depth	Height	Weight [lb]	Front - Axis	Side - Axis	Vert - Axis
40.9	13.6	69.5	543.5	11.48	16.36	>50

ICC-ES AC156 (24) 2nd Edition Test Parameters **Building Code: 2025 CBC**

S_{DS} (g)	z/h	R_μ	H_f	I_P	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)
2.00 2.50	1 0	1.3 1.0	3.5 1.0	1.5	3.20	2.40	1.68	0.68

Unit satisfied AC156 requirements for structural integrity and manufacturer requirements for functionality after AC156 test.

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ATTACHMENT 3: TEST SUMMARY

UUT	REPORT NUMBER	TEST DATE	TEST FACILITY	REPORT UUT
2502-5	SQ10250202	Oct 16, 2025	Environmental Testing Laboratory, Inc.	5A
2502-6				6
2101-3	*SQ10210101*	*Feb 8-12, 2021*		*3*

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