APPLICATION FOR HCAI SPECIAL SEISMIC CERTIFICATION PREAPPROVAL (OSP)

OFFICE USE ONLY

APPLICATION #: OSP-0402

HCAI Special Seismic Certification Preapproval (OSP)

Type: ☐ New ☒ Renewal

Manufacturer Information

Manufacturer: KONE

Manufacturer's Technical Representative: Jorge Torres

Mailing Address: 450 Century Parkway, Allen, TX 75013

Telephone: (469) 854-8741 Email: JorgeAlberto.Torres@kone.com

Product Information

Product Name: LCE Traction Elevator Transformers

Product Model Number(s): See Attachment 1

Product Category: Elevator Equipment

Product Sub-Category: Elevator Controllers

General Description: Main line transformers for electronic motion control system for the operation of people-moving elevators.

Mounting Description: Base Mounted Rigid -

Tested Seismic Enhancements: None

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: j.roberson@easeco.com

Title: S.E.

HCAi OSP-0402 BY: Timothy J Piland DATE: 04/28/2025

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

Design Basis of Equipment or Components (F_p/W_p) = 1.44

S_{DS} (Design spectral response acceleration at short period, g) = 2.00

a_p (Amplification factor) = 1

R_p (Response modification factor) = 2.5

Ω_0 (System overstrength factor) = 2.0

I_p (Importance factor) = 1.5

z/h (Height ratio factor) = 1

Natural frequencies (Hz) = See Attachment 2

Overall dimensions and weight = See Attachment 1

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HCAI Approval (For Office Use Only) - Approval Expires on 04/28/2031

Date: 4/28/2025

Name: Timothy Piland Title: Senior Structural Engineer

Special Seismic Certification Valid Up to: S_{DS} (g) = 2.00 z/h = 1

Condition of Approval (if applicable):

ATTACHMENT 1: SEISMIC CERTIFIED COMPONENTS

TABLE 1: SEISMIC CERTIFIED COMPONENTS

Manufacturer	**KONE**
Product Line	**Main Line Transformers**

COMPONENT	MANUF.	MODEL NO.	DIMENSIONS (IN.) W	D	H	APPROX. WT. (LB.)	MOUNT	BASIS
55 KVA Transformer 200V - 240V	Nova Magnetics	**KM785076G05**	**17.3**	**16.0**	**27.4**	**281**	Floor	UUT5
55 KVA Transformer 440V - 500V	Nova Magnetics	KM785077G05	18.0	16.5	27.5	175	Floor	INT
55 KVA Transformer 575V - 600V	Nova Magnetics	KM785078G05	18.0	16.5	27.5	230	Floor	INT
45 KVA Transformer 200V - 240V	Nova Magnetics	KM785076G04	18.0	16.5	27.5	229	Floor	INT
45 KVA Transformer 440V - 500V	Nova Magnetics	KM785077G04	18.0	16.5	27.5	155	Floor	INT
45 KVA Transformer 575V - 600V	Nova Magnetics	KM785078G04	18.0	16.5	27.5	205	Floor	INT
35 KVA Transformer 200V - 240V	Nova Magnetics	KM785076G03	18.0	14.5	26.0	175	Floor	INT
35 KVA Transformer 440V - 500V	Nova Magnetics	KM785077G03	13.5	13.5	18.0	101	Floor	INT
35 KVA Transformer 575V - 600V	Nova Magnetics	KM785078G03	18.0	14.5	26.0	150	Floor	INT
25 KVA Transformer 200V - 240V	Nova Magnetics	KM785076G02	18.0	14.5	26.0	145	Floor	INT
25 KVA Transformer 440V - 500V	Nova Magnetics	KM785077G02	13.5	13.5	18.0	77	Floor	INT
25 KVA Transformer 575V - 600V	Nova Magnetics	KM785078G02	13.5	13.5	18.0	107	Floor	INT
15 KVA Transformer 200V - 240V	Nova Magnetics	KM785076G01	13.5	13.5	18.0	105	Floor	INT
15 KVA Transformer 440V - 500V	Nova Magnetics	KM785077G01	13.5	13.5	18.0	61	Floor	INT
15 KVA Transformer 575V - 600V	Nova Magnetics	KM785078G01	13.5	13.5	18.0	85	Floor	INT
10 KVA Transformer 200V - 240V	Nova Magnetics	KM785076G06	13.5	13.5	18.0	95	Floor	INT
10 KVA Transformer 440V - 500V	Nova Magnetics	**KM785077G06**	**12.8**	**13.0**	**18.0**	**66**	Floor	UUT6
10 KVA Transformer 575V - 600V	Nova Magnetics	KM785078G06	13.5	13.5	18.0	66	Floor	INT

Mount	Floor (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 as part of this testing program. • INT (Interpolate/Extrapolate): indicates a model that was not specifically tested, and by which seismic certification is established through evaluation of testing of other, similar models in the product line

ATTACHMENT 2: TEST SPECIMEN SUMMARY

UUT- 5 55kVa Transformer

MANUFACTURER: Nova Magnetics

IDENTIFICATION: Model No.: KM785076G05

DESCRIPTION: Component of the LCE Elevator Control System

MOUNTING: Floor mounted using (4) – 1/2” dia GR 8 hex head bolts

PROPERTIES:

DIMENSIONS (in.)				LOWEST RESONANT FREQUENCY (Hz.)		
Width	Depth	Height	Weight (lb.)	Front-Axis	Side-Axis	Vertical-Axis
17.25	16	27.375	281	12.2	17.6	46.9

SHAKE TABLE TEST PARAMETERS

CODE	TEST CRITERIA	S_{DS}	z/h	I_P	A_{FLX-H}	A_{RIG-H}	A_{FLX-V}	A_{RIG-V}
CBC 2022	ICC-ES AC156	2.0	1.0	1.5	3.2	2.4	1.34	0.54

Unit maintained structural integrity and functionality after the ICC-ES AC 156 test

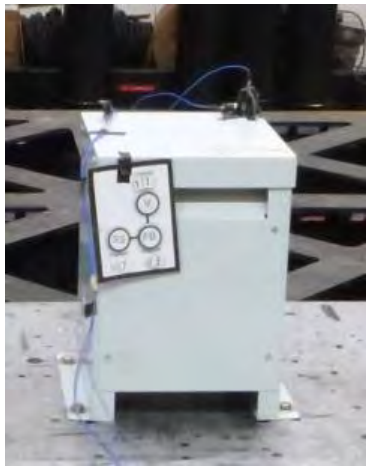
UUT- 6 10kVa autotransformer

MANUFACTURER: Nova Magnetics

IDENTIFICATION: Model No.: KM785077G06

DESCRIPTION: Component of the LCE Elevator Control System

MOUNTING: Floor mounted using (4) – 1/2” dia GR 8 hex head bolts



PROPERTIES:

DIMENSIONS (in.)				LOWEST RESONANT FREQUENCY (Hz.)		
Width	Depth	Height	Weight (lb.)	Side -Axis	Front-Axis	Vertical-Axis
12.75	13	18	66	26.6	19.3	38.8

SHAKE TABLE TEST PARAMETERS

CODE	TEST CRITERIA	S_{DS}	z/h	I_P	A_{FLX-H}	A_{RIG-H}	A_{FLX-V}	A_{RIG-V}
CBC 2022	ICC-ES AC156	2.0	1.0	1.5	3.2	2.4	1.34	0.54

Unit maintained structural integrity and functionality after the ICC-ES AC 156 test

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