



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

**APPLICATION FOR OSHPD SPECIAL SEISMIC
CERTIFICATION PREAPPROVAL (OSP)**

OFFICE USE ONLY

APPLICATION #: **OSP – 0402 – 10**

OSHPD Special Seismic Certification Preapproval (OSP)

Type: New Renewal

Manufacturer Information

Manufacturer: **KONE**

Manufacturer's Technical Representative: **Mike Lewis**

Mailing Address: **700 Central Expressway S. Suite 400 Allen, TX. 75013**

Telephone: **(469)-854-8825** Email: **mike.lewis@kone.com**

Product Information

Product Name: **LCE Traction Elevator Logic and Drive Controller w/ KDM Drive**

Product Type: **Elevator Controls**

Product Model Number: **See Attachment 1**

(List all unique product identification numbers and/or part numbers)

General Description: **Electronic motion control system for the operation of people-moving elevators.**

Mounting Description: **Rigid base mounted**

Applicant Information

Applicant Company Name: **EASE LLC**

Contact Person: **Jonathan Roberson, S.E.**

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

Telephone: **(406) 541-EASE (3273)** Email: **j.roberson@easeco.com**

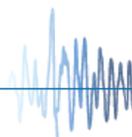
I hereby agree to reimburse the Office of Statewide Health Planning and Development review fees in accordance with the California Administrative Code, 2013.

Signature of Applicant:  Date: **May 8, 2015**

Title: **Principal Engineer** Company Name: **EASE LLC**

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

STATE OF CALIFORNIA – HEALTH AND HUMAN SERVICES AGENCY
OSH-FD-759 (REV 1/24/13)



osHPD



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

Company Name: EASE LLC

Name: Jonathan Roberson, S.E. California License Number: S4197

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

Telephone: (909) 606-7622 Email: j.roberson@easeco.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: Environmental Testing Laboratory, Inc.

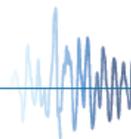
Contact Name: Brady Richard

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

Telephone: (972) 247-9657 Email: brady@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) = 1.44

S_{DS} (Design spectral response acceleration at short period, g) = 2.0

a_p (In-structure equipment or component amplification factor) = 1

R_p (Equipment or component response modification factor) = 2½

Ω_0 (System overstrength factor) = 2½

I_p (Importance factor) = 1.5

z/h (Height factor ratio) = 1

Equipment or Component Natural Frequencies (Hz) = See Attachment 2

Overall dimensions and weight (or range thereof) = See Attachment 1, Table 1

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) = _____

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, 2010: Yes No

List of Attachments Supporting Special Seismic Certification

Test Report(s) Drawings Calculations Manufacturer's Catalog

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

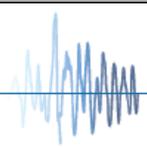
OSHPD Approval (For Office Use Only) – Approval Expires on December 31, 2019

Signature:  Date: May 8, 2015

Print Name: Timothy J. Pijand Title: SEE

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

Condition of Approval (if applicable): _____



ATTACHMENT 1: SEISMIC CERTIFIED COMPONENTS

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TABLE 1: SEISMIC CERTIFIED COMPONENTS

Manufacturer		KONE						
Product Line		LCE Traction Elevator Logic and Drive Controller w/KDM Drive						
COMPONENT	MANUF.	MODEL NO.	DIMENSIONS (IN.)			APPROX. WT. (LB.)	MOUNT	BASIS
			W	D	H			
ReSolve 400 – LCE Controller for Induction Motor Application	KONE	50304404D20	24	14.5	79.1	373	Floor	UUT1
KCM 831 - LCE Controller for Permanent Magnet Motor Application	KONE	50304404D20	24	14.5	79.1	363	Floor	UUT2
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) Mount: 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: <ul style="list-style-type: none"> • 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 1: SEISMIC CERTIFIED COMPONENTS

TABLE 2: SEISMIC CERTIFIED SUBCOMPONENTS

SUBCOMPONENT DESCRIPTION	MANUFACTURER	PART NO.	MATERIAL	BASIS
RESOLVE 400 & KCM 831 LOGIC CONTROLLERS	KONE INDUSTRIAL	50304404D20		
COMPONENT KIT, STANADRD consisting of...	MANUFACTURA CCT S DE RL DE CV	KM50304404R01	Galvanized CRS/Copper/Plastic/FR4 PCB	UUT1 UUT2
KDA MODULE FOR ASYNC, NA	Scanfil (Suzhou) CO., LTD	KM1368628G14	Galvanized CRS/Copper/Plastic/FR4 PCB	UUT1 UUT2
VENTHOODASSEMBLY,90AMPDRIVE	KONE Industrial	KM50001092G01	Galvanized CRS	UUT1 UUT2
TRANSFORMER, CURRENT CONTROL 400V	NORATEL GERMANY AG	KM713383G01	Laminated Steel/Copper/Varnished/Open Core	UUT1 UUT2
CABINET,CONTROL PANEL NA LCE WITH KDM	KONE Industrial	KM976470G04	Galvanized CRS	UUT1 UUT2
POWER MODULE,1200VA KDM 90A	KONE Industrial	KM996183G02	Formed Aluminum/Electrogalvanized CRS/Copper/Plastic/FR4 PCB	UUT1 UUT2
KONE KDM90 DRIVE, VACON KR7 90A IP23	Vacon Plc	KM997160	Galvanized CRS/Copper/Plastic/FR4 PCB	UUT1 UUT2
Brake Control, BCM25 for Geared Machine Brake	Scanfil (Suzhou) CO., LTD	KM50002114G02	Galvanized CRS/Copper/FR4 PCB	UUT1
Brake Control, KDHBCM for Geared Machine Brake	ENICS Eesti AS	KM825580G05	Formed Aluminum/Galvanized CRS/Copper/FR4 PCB	UUT2
Brake Control, KDHBCM for MX32 Machine Brake	ENICS Eesti AS	KM825580G06	Formed Aluminum/Galvanized CRS/Copper/FR4 PCB	INT
Brake Control, KDHBCM for MX32 Machine Brake	ENICS Eesti AS	KM825580G06	Formed Aluminum/Galvanized CRS/Copper/FR4 PCB	UUT2
AUTOTRANSFORMER, 230/120VAC	TRAFOMIC OY	KM808156	Laminated Steel/Copper/Varnished/Open Core	UUT1 UUT2
OPTION MODULE, SECOND (EAQ/FPO OPT#3 AND EAQ)	KONE Industrial	KM780225G06	Galvanized CRS/FR4 PCB	UUT1
OPTION MODULE, THIRD (1 GTWO board)	KONE Industrial	KM780225G07	Galvanized CRS/FR4 PCB	INT
OPTION MODULE, THIRD (2 GTWO boards)	KONE Industrial	KM780225G09	Galvanized CRS/FR4 PCB	UUT1
OPTION MODULE, FOURTH, (2 ETSL boards)	KONE Industrial	KM780215G02	Galvanized CRS/FR4 PCB	INT
OPTION MODULE, FOURTH, (1 ETSL board)	KONE Industrial	KM780215G01	Galvanized CRS/FR4 PCB	UUT1
TRACTION LOSS RESET SWITCH	KONE Industrial	KM50071398G01	Galvanized CRS/Plastic	UUT1 UUT2
MODULE, INTERCOM	KONE Industrial	KM996186G01	Galvanized CRS/Copper/Plastic	UUT1 UUT2
MODULE, FSP/TSD REPEATER	KONE Industrial	KM783040G01	Galvanized CRS/Plastic	UUT1
POWER MODULE, 24VDC	KONE Industrial	KM996187G01	Painted CRS/Galvanized CRS/Copper/Plastic	UUT1
MODULE, BCXIFB, ReSolve 400 or KCM 831 w/ Brake > 2.5 amps	Enics Finlandia Oy	KM50028924G01	Galvanized CRS/FR4 PCB	UUT2

ATTACHMENT 1: SEISMIC CERTIFIED COMPONENTS

TABLE 2: SEISMIC CERTIFIED SUBCOMPONENTS

	SUBCOMPONENT DESCRIPTION	MANUFACTURER	PART NO.	MATERIAL	BASIS
Notes	<ol style="list-style-type: none"> 1. BASIS: <ul style="list-style-type: none"> • 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. 2. Certification in this table is limited devices identified when installed as part of a complete assembly of the equipment defined in Table 1. 3. CRS = Cold-Rolled Sheet-Steel. 4. FR4 PCB = Copper-clad, epoxy-fiberglass substrate, printed circuit board (PCB) material. 				

ATTACHMENT 2: TEST SPECIMEN SUMMARY

UUT- 1 ReSolve 400 LCE Logic and KDM90 Drive Controller Assembly								
MANUFACTURER: KONE Inc.								
IDENTIFICATION: Model No.: 50304404D20								
DESCRIPTION: ReSolve 400 LCE Logic and KDM90 Drive Controller Assembly: Inputs: Control: 208-480 Vac, 1-ph, 50/60 Hz, 6 A; Drive Input: 400Vac, 3-ph, 50/60 Hz, 82 A. Outputs: motor circuit 0 - 400 Vac, 3-ph, 0-250 Hz, 90 A nominal, 37 kW/50 hp at 360V, brake circuits (Main) 200 Vdc, 3 A pick, 1.5 A hold, (Secondary) 120 Vac, 1-ph, 50/60 hz, 6A; door circuit 230 Vac, 1-ph, 50/60 Hz; 6 A, safety circuit 120/230 Vac, 1-ph, 50/60 Hz; 1 A, logic circuits (3) 24 Vdc, 3 A.								
MOUNTING: Floor mounted using (4) – 3/8" dia GR 8 Allen head cap bolts								
PROPERTIES:								
DIMENSIONS (in.)				Weight (lb.)	LOWEST RESONANT FREQUENCY (Hz.)			
Width	Depth	Height	Front-Axis		Side-Axis	Vertical-Axis		
24	14.5	79	5.8		5.9	14.9		
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 2013	ICC-ES AC156-12	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- 2 KCM 831 LCE Traction Elevator Logic and KDM90 Drive Controller Assembly								
MANUFACTURER: KONE Elevator								
IDENTIFICATION: Model No.: 50304404D20								
DESCRIPTION: KCM 831 LCE Traction Elevator Logic and KDM90 Drive Controller Assembly: Input: 400 Vac, 3-ph, 50/60 Hz, 82 A; Outputs: motor circuit 0 - 400 Vac, 3-ph, 0-250 Hz, 90 A nominal, 45 kW/60hp at 400V, brake circuits (2) 200 Vdc, 3 A pick, 1.5 A hold; door circuit 230 Vac, 1-ph, 50/60 Hz; 6 A, safety circuit 120/230 Vac, 1-ph, 50/60 Hz; 1 A, logic circuits (3) 24 Vdc, 3 A.								
MOUNTING: Floor mounted using (4) – 3/8" dia GR 8 Allen head cap bolts								
PROPERTIES:								
DIMENSIONS (in.)				Weight (lb.)	LOWEST RESONANT FREQUENCY (Hz.)			
Width	Depth	Height	Side -Axis		Front-Axis	Vertical-Axis		
24	14.5	79	7.0		6.1	14.9		
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 2013	ICC-ES AC156-12	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								

ATTACHMENT 2: TEST SPECIMEN SUMMARY

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UUT- 5		55kVa Transformer						
<i>MANUFACTURER:</i>		Nova Magnetics						
<i>IDENTIFICATION:</i>		Model No.: KM785076G05						
<i>DESCRIPTION:</i>		Component of the LCE Elevator Control System						
<i>MOUNTING:</i>		Floor mounted using (4) – 1/2" dia GR 8 hex head bolts						
<i>PROPERTIES:</i>								
DIMENSIONS (in.)				Weight (lb.)	LOWEST RESONANT FREQUENCY (Hz.)			
Width	Depth	Height	Front-Axis		Side-Axis	Vertical-Axis		
17.25	16	27.375	281		12.2	17.6	46.9	
<i>SHAKE TABLE TEST PARAMETERS</i>								
CODE	TEST CRITERIA	S _{Ds}	z/h	I _p	A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG-V}
CBC 2013	ICC-ES AC156-12	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						
<i>MANUFACTURER:</i>		Nova Magnetics						
<i>IDENTIFICATION:</i>		Model No.: KM785077G06						
<i>DESCRIPTION:</i>		Component of the LCE Elevator Control System						
<i>MOUNTING:</i>		Floor mounted using (4) – 1/2" dia GR 8 hex head bolts						
<i>PROPERTIES:</i>								
DIMENSIONS (in.)				Weight (lb.)	LOWEST RESONANT FREQUENCY (Hz.)			
Width	Depth	Height	Side -Axis		Front-Axis	Vertical-Axis		
12.75	13	18	66		26.6	19.3	38.8	
<i>SHAKE TABLE TEST PARAMETERS</i>								
CODE	TEST CRITERIA	S _{Ds}	z/h	I _p	A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG-V}
CBC 2013	ICC-ES AC156-12	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								