

APPLICATION FOR PREAPPROVAL

SPECIAL SEISMIC CERTIFICATION OF EQUIPMENT AND COMPONENTS

For Office Use Only

APPLICATION NO.

OSP – 0274-10

Check whether application is: NEW RENEWAL

1.0 APC by Schneider Electric John Goosseff
Manufacturer *Manufacturer's Technical Representative*

1660 Scenic Avenue, Costa Mesa, CA 92626
Mailing Address

(714) 445-7435 John.Goosseff@schneider-electric.com
Telephone *E-mail Address*

2.0 MGE Galaxy and MGE EPS Battery Cabinets Battery Cabinet
Product Name *Product Type*

See "Product Range Summary"
Product Model No. (List all unique product identification numbers and/or serial numbers)

General Description: Rigidly floor mounted external battery cabinets.

3.0 APC by Schneider Electric John Goosseff
Applicant Company Name *Contact Person*

1660 Scenic Avenue, Costa Mesa, CA 92626
Mailing Address

(714) 445-7435 John.Goosseff@schneider-electric.com
Telephone *E-mail Address*

I hereby agree to reimburse the Office of Statewide Health Planning and Development for the actual costs incurred by the department for review.



Signature of Applicant

Director, Business Dev.–3 Phase Power NAM
Title

5/17/2012
Date

APC by Schneider Electric
Company Name



Registered Design Professional Preparing the Report

4.0

University of Alabama - Birmingham

Company Name

Lee Gholamreza Moradi

Contact Name

C41383

California License Number

4824 Sulphur Springs Rd, Hoover, AL 35226

Mailing Address

205-975-2718

Telephone

moradi@uab.edu

E-mail Address

California Licensed Structural Engineer Review and Acceptance of the Report

5.0

Forell-Elsesser Engineers, Inc.

Company Name

Marco Scanu, SE

Contact Name

S4454

California License Number

160 Pine St., 6th Flr., San Francisco, CA 94111

Mailing Address

415-837-0700

Telephone

m.scanu@forell.com

E-mail Address

Anchorage Pre-Approval

6.0

Anchorage is pre-approved under OPA-
(Separate application for anchorage pre-approval is required)

Anchorage is not Pre-approved

Certification Method

7.0 Testing in accordance with: ICC-ES AC-156 Other (Please Specify):

Analysis

Experience data

Combination of Testing, Analysis, and/or Experience Data (Please Specify):

Testing Laboratory (if applicable)

8.0

Wyle Laboratories

Company Name

Rod Thornberry

Contact Name

7800 Hwy 20, Huntsville, AL 35806

Mailing Address

(256) 837-4411

Telephone

E-mail



Approval Parameters

9.0

Design in accordance with ASCE 7-05 Chapter 13: Yes No

Design Basis of Equipment or Components (F_p/W_p) = 0.99

S_{DS} (Spectral response acceleration at short period) = 1.38g

a_p (In-structure equipment or component amplification factor) = 1.0

R_p (Equipment or component response modification factor) = 2.5

I_p (Importance factor) = 1.5

z/h (Height factor ratio) = 1.0

Equipment or Component fundamental period(s) = See attachment, "Resonant Frequency Summary"

Building period limits (if any) = n/a

Overall dimensions and weight (or range thereof) = See attachment, "Product Range Summary"

Equipment or Components @ grade designed in accordance with ASCE 7-05 Chapter 15: Yes No

Design Basis of Equipment or Components (V/W) =

S_{DS} (Spectral response acceleration at short period) =

S_1 (Spectral response acceleration at 1 second period) =

R (Response modification coefficient)=1.0

Ω_o (System overstrength factor) =1.0

C_d (Deflection amplification factor) =1.0

I_p (Importance factor) =1.5

Height to Center of Gravity above base =

Equipment or Component fundamental period(s) = Sec

Overall dimensions and weight (or range thereof) =

Tank(s) designed in accordance with ASME BPVC, 2007: Yes No

10.0 List of attachments supporting the special seismic certification of equipment or components:

- Test Report
- Drawings
- Manufacturer's Catalog
- Calculations
- Other (Please Specify): SE Acceptance Letter, Product Range Summary, CBC 2010 & AC156 Requirements Checklist

11.0 OSHPD Approval (For Office Use Only)

December 31, 2016

[Handwritten Signature]

5/17/2012

Signature & Date

Approval Expiration Date

Timothy J. Piland, SSE

S_{DS} (g) = 1.38 z/h = 1.0

Name & Title

Special Seismic Certification Valid Up to

Condition of Approval (if any):

**APC by Schneider Electric - MGE Galaxy/MGE EPS Batteries
Product Range Summary**

Unit	Width	Depth	Height	Max. Weight	Part No.	Construction Material ^{1,2}	Notes	Test Status
Battery Cabinets								
OS35 Cabinet	36.5 in	31.5 in	72.2 in	3350.0 lbs	OS35	0.059"-0.179" CFS	3	Interpolated
OS38 Cabinet	39.0 in	33.0 in	75.0 in	4985.0 lbs	OS38	0.059"-0.179" CFS	3	UUT-1
OS40 Cabinet	39.0 in	33.0 in	82.2 in	4985.0 lbs	OS40	0.059"-0.179" CFS	3	Interpolated
OS42 Cabinet	39.0 in	39.0 in	82.2 in	4985.0 lbs	OS42	0.059"-0.179" CFS	3	Interpolated
OS48 Cabinet	48.2 in	33.0 in	75.0 in	4985.0 lbs	OS48	0.059"-0.179" CFS	3	UUT-2
Notes								
1. All enclosures are NEMA 1 rated. 2. CFS= cold-formed carbon steel 3. Floor mounted.								

FORELL/ELSESSER ENGINEERS, INC.
160 Pine Street, 6th Floor
San Francisco, CA 94111

APC by Schneider Electric - MGE Galaxy/MGE EPS Battery Cabinet
Product Range Summary

Internal Components	Manufacturer	Part #	Testing Status
Batteries			
UPS12-300MR	C&D	D300	UUT-1
UPS12-350MR	C&D	D350	Interpolated
UPS12-400MR	C&D	D400	Interpolated
UPS12-490MR	C&D	D490	Interpolated
UPS12-490MRLP	C&D	D490LP	Interpolated
UPS12-540MR	C&D	D540	UUT-2
S12V285	GNB	S285	UUT-1
S12V300	GNB	S300	Interpolated
S12V370	GNB	S370	Interpolated
S12V500	GNB	S500	UUT-2
12HX300	ENERSYS	HX300	UUT-1
12HX330	ENERSYS	HX330	Interpolated
12HX400	ENERSYS	HX400	Interpolated
12HX505	ENERSYS	HX505	Interpolated
12HX540	ENERSYS	HX540	UUT-2
Circuit Breakers			
150A Circuit Breaker	Square D	KHL36150-17DC-1625	Interpolated
250A Circuit Breaker	Square D	KHL36250-25DC-1625	UUT-1
400A Circuit Breaker	Square D	LHL36400-30DC-1625	UUT-2
500A Circuit Breaker	Square D	MHL36500-32DC-1625	Interpolated
600A Circuit Breaker	Square D	MHL36600-33DC-1625	Interpolated
Cables			
1/0 Fine Stranded 600V 105C Power Cable Assembly	IntraPack	WIR0009	UUT-1
4/0 Fine Stranded 600V 105C Power Cable Assembly	IntraPack	WIR0012	UUT-2
Control Cable Assembly	IntraPack	S003048	UUT-1, UUT-2
Output Section	IntraPack	S006182	UUT-2

4.2 Test Summary

UUT1

OS38 Galaxy Battery Cabinet
 0.0159"-0.179" Cold Rolled Carbon Steel
 39"W x 33"D x 75"H,
 2,827 lbs
 Floor mounted with (4) ¾-10 Grade 5 bolts



UUT 1 – OS38

OS38 Galaxy Battery Cabinet– UUT1 – Internal Components		
Description	Manufacturer	Part Number
UPS12-300MR Battery	C&D	D300
S12V285 Battery	GNB	S285
12HX300 Battery	ENERSYS	HX300
250A Circuit Breaker	Square D	KHL36250-25DC-1625
1/0 Fine Stranded 600V 105C Power Cable Assembly	IntraPack	WIR0009
Control Cable Assembly	IntraPack	S003048

UUT2

OS48 Battery Cabinet
 0.0159"-0.179" Cold Rolled Carbon Steel
 48.2"W x 33"D x 75"H,
 4,732 lbs
 Floor mounted with (6) ¾-10 Grade 5 bolts



UUT 2 – OS48

OS48 Galaxy Battery Cabinet – UUT2– Internal Components		
Description	Manufacturer	Part Number
UPS12-540MR Battery	C&D	D540
S12V500 Battery	GNB	S500
12HX540 Battery	ENERSYS	HX540
400A Circuit Breaker	Square D	LHL36400-30DC-1625
4/0 Fine Stranded 600V 105C Power Cable Assembly	IntraPack	WIR0012
Control Cable Assembly	IntraPack	S003048
Output Section	IntraPack	S006182

**MGE Galaxy/MGE EPS Battery Cabinet
Resonant Frequency Summary**

Direction	Galaxy OS38 Battery Cabinet- UUT1		Galaxy OS48 Battery Cabinet - UUT2	
	Frequency	Period	Frequency	Period
Front-Back	15.0 Hz	0.07 sec	11.0 Hz	0.09 sec
Side-Side	12.0 Hz	0.08 sec	8.8 Hz	0.11 sec
Vertical	N/A	N/A	N/A	N/A