



APPLICATION FOR PREAPPROVAL SPECIAL SEISMIC CERTIFICATION OF EQUIPMENT AND COMPONENTS

For Office Use Only

APPLICATION NO.
OSP – 0262 - 10

Check whether application is: NEW RENEWAL

1.0 APC by Schneider Electric Eric Guillot
Manufacturer *Manufacturer's Technical Representative*

140, Avenue Jean Kuntzmann, Inovalée, 38334 Montbonnot Saint Martin, France
Mailing Address

+33 4 76 18 33 09 eric.guillot@mgeups.com
Telephone *E-mail Address*

2.0 MGE Epsilon STS Static Transfer Switch (STS)
Product Name *Product Type*

200A to 600A Static Transfer Switch (STS) – See Product Range Summary attached
Product Model No. (List all unique product identification numbers and/or serial numbers)

General Description: 200A to 600A rigid floor mounted Static Transfer Switch.

3.0 APC by Schneider Electric Eric Guillot
Applicant Company Name *Contact Person*

140, Avenue Jean Kuntzmann, Inovalée, 38334 Montbonnot Saint Martin, France
Mailing Address

+33 4 76 18 33 09 eric.guillot@mgeups.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

8/1/2012

Date

Multi Technology Project Integration Leader

Title

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) = 1.09

S_{DS} (Spectral response acceleration at short period) = 1.45g

a_p (In-structure equipment or component amplification factor) = 2.5

R_p (Equipment or component response modification factor) = 6.0

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_0 (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)

<p>Signature & Date M. R. Karim, SHFR</p>	<p>8/1/2012 December 31, 2016</p> <p>Approval Expiration Date</p>
<p>Name & Title</p>	<p>S_{DS} (g) = 1.45 z/h = 1.0</p> <p>Special Seismic Certification Valid Up to</p>
<p>Condition of Approval (if any):</p>	

APC by Schneider Electric - MGE EPSILON STS

Product Range Summary

Unit	Width	Depth	Height	Max. Weight	Part No.	Construction Material ^{1,2}	Notes	Test Status
Static Transfer Switch (STS)								
200A STATIC TRANS SW 208V STD XFER	24.5 in	29.53 in	72.21 in	898.0 lbs	0M-STEU200F0	0.108" CFS	3	Interpolated
200A STATIC TRANS SW 208V FST XFER	24.5 in	29.53 in	72.21 in	898.0 lbs	0M-STEU200F1	0.108" CFS	3	Interpolated
200A STATIC TRANS SW 220V STD XFER	24.5 in	29.53 in	72.21 in	898.0 lbs	0M-STEU200K0	0.108" CFS	3	Interpolated
200A STATIC TRANS SW 220V FST XFER	24.5 in	29.53 in	72.21 in	898.0 lbs	0M-STEU200K1	0.108" CFS	3	Interpolated
200A STATIC TRANS SW 240V STD XFER	24.5 in	29.53 in	72.21 in	898.0 lbs	0M-STEU200W0	0.108" CFS	3	Interpolated
200A STATIC TRANS SW 240V FST XFER	24.5 in	29.53 in	72.21 in	898.0 lbs	0M-STEU200W1	0.108" CFS	3	Interpolated
200A STATIC TRANS SW 480V STD XFER	24.5 in	29.53 in	72.21 in	898.0 lbs	0M-STEU200G0	0.108" CFS	3	58596R11-UUT-1B
200A STATIC TRANS SW 480V APC STD XFER	24.5 in	29.53 in	72.21 in	1072.0 lbs	0M-STEU200G0APC	0.108" CFS	3	Interpolated
200A STATIC TRANS SW 480V FST XFER	24.5 in	29.53 in	72.21 in	898.0 lbs	0M-STEU200G1	0.108" CFS	3	Interpolated
200A STATIC TRANS SW 480V APC FST XFER	24.5 in	29.53 in	72.21 in	1072.0 lbs	0M-STEU200G1APC	0.108" CFS	3	Interpolated
200A STATIC TRANS SW 440V STD XFER	24.5 in	29.53 in	72.21 in	898.0 lbs	0M-STEU200S0	0.108" CFS	3	Interpolated
200A STATIC TRANS SW 440V FST XFER	24.5 in	29.53 in	72.21 in	898.0 lbs	0M-STEU200S1	0.108" CFS	3	Interpolated
200A STATIC TRANS SW 600V STD XFER	24.5 in	29.53 in	72.21 in	898.0 lbs	0M-STEU200L0	0.108" CFS	3	Interpolated
200A STATIC TRANS SW 600V FST XFER	24.5 in	29.53 in	72.21 in	898.0 lbs	0M-STEU200L1	0.108" CFS	3	Interpolated
200A STATIC TRANS SW 575V STD XFER	24.5 in	29.53 in	72.21 in	898.0 lbs	0M-STEU200Z0	0.108" CFS	3	Interpolated
200A STATIC TRANS SW 575V FST XFER	24.5 in	29.53 in	72.21 in	898.0 lbs	0M-STEU200Z1	0.108" CFS	3	Interpolated
400A STATIC TRANS SW 208V STD XFER	38.5 in	29.53 in	72.21 in	1336.0 lbs	0M-STEU400F0	0.108" CFS	3	Interpolated
400A STATIC TRANS SW 208V FST XFER	38.5 in	29.53 in	72.21 in	1336.0 lbs	0M-STEU400F1	0.108" CFS	3	Interpolated
400A STATIC TRANS SW 220V STD XFER	38.5 in	29.53 in	72.21 in	1336.0 lbs	0M-STEU400K0	0.108" CFS	3	Interpolated
400A STATIC TRANS SW 220V FST XFER	38.5 in	29.53 in	72.21 in	1336.0 lbs	0M-STEU400K1	0.108" CFS	3	Interpolated
400A STATIC TRANS SW 240V STD XFER	38.5 in	29.53 in	72.21 in	1336.0 lbs	0M-STEU400W0	0.108" CFS	3	Interpolated
400A STATIC TRANS SW 240V FST XFER	38.5 in	29.53 in	72.21 in	1336.0 lbs	0M-STEU400W1	0.108" CFS	3	Interpolated
400A STATIC TRANS SW 480V STD XFER	38.5 in	29.53 in	72.21 in	1336.0 lbs	0M-STEU400G0	0.108" CFS	3	Interpolated
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 EPSILON STS

Product Range Summary

Unit	Width	Depth	Height	Max. Weight	Part No.	Construction Material ^{1,2}	Notes	Test Status
Static Transfer Switch (STS) cont'd								
400A STATIC TRANS SW 480V APC STD XFER	38.5 in	29.53 in	72.21 in	1510.0 lbs	0M-STEU400G0APC	0.108" CFS	3	70102R12-UUT-2A
400A STATIC TRANS SW 480V FST XFER	38.5 in	29.53 in	72.21 in	1336.0 lbs	0M-STEU400G1	0.108" CFS	3	Interpolated
400A STATIC TRANS SW 480V APC FST XFER	38.5 in	29.53 in	72.21 in	1510.0 lbs	0M-STEU400G1APC	0.108" CFS	3	Interpolated
400A STATIC TRANS SW 480V APC DYN DLAY	38.5 in	29.53 in	72.21 in	1510.0 lbs	0M-STEU400G0DYN	0.108" CFS	3	Interpolated
400A STATIC TRANS SW 480V DYN DLAY	38.5 in	29.53 in	72.21 in	1510.0 lbs	0M-STEU400G1DYN	0.108" CFS	3	Interpolated
400A STATIC TRANS SW 440V STD XFER	38.5 in	29.53 in	72.21 in	1336.0 lbs	0M-STEU400S0	0.108" CFS	3	Interpolated
400A STATIC TRANS SW 440V FST XFER	38.5 in	29.53 in	72.21 in	1336.0 lbs	0M-STEU400S1	0.108" CFS	3	Interpolated
400A STATIC TRANS SW 600V STD XFER	38.5 in	29.53 in	72.21 in	1336.0 lbs	0M-STEU400L0	0.108" CFS	3	Interpolated
400A STATIC TRANS SW 600V FST XFER	38.5 in	29.53 in	72.21 in	1336.0 lbs	0M-STEU400L1	0.108" CFS	3	Interpolated
400A STATIC TRANS SW 575V STD XFER	38.5 in	29.53 in	72.21 in	1336.0 lbs	0M-STEU400Z0	0.108" CFS	3	Interpolated
400A STATIC TRANS SW 575V FST XFER	38.5 in	29.53 in	72.21 in	1336.0 lbs	0M-STEU400Z1	0.108" CFS	3	Interpolated
600A STATIC TRANS SW 208V STD XFER	38.5 in	29.53 in	72.21 in	1336.0 lbs	0M-STEU600F0	0.108" CFS	3	58596R11 UUT-1A
600A STATIC TRANS SW 208V FST XFER	38.5 in	29.53 in	72.21 in	1336.0 lbs	0M-STEU600F1	0.108" CFS	3	Interpolated
600A STATIC TRANS SW 220V STD XFER	38.5 in	29.53 in	72.21 in	1336.0 lbs	0M-STEU600K0	0.108" CFS	3	Interpolated
600A STATIC TRANS SW 220V FST XFER	38.5 in	29.53 in	72.21 in	1336.0 lbs	0M-STEU600K1	0.108" CFS	3	Interpolated
600A STATIC TRANS SW 240V STD XFER	38.5 in	29.53 in	72.21 in	1336.0 lbs	0M-STEU600W0	0.108" CFS	3	Interpolated
600A STATIC TRANS SW 240V FST XFER	38.5 in	29.53 in	72.21 in	1336.0 lbs	0M-STEU600W1	0.108" CFS	3	Interpolated
600A STATIC TRANS SW 480V STD XFER	38.5 in	29.53 in	72.21 in	1336.0 lbs	0M-STEU600G0	0.108" CFS	3	Interpolated
600A STATIC TRANS SW 480V APC STD XFER	38.5 in	29.53 in	72.21 in	1510.0 lbs	0M-STEU600G0APC	0.108" CFS	3	Interpolated
600A STATIC TRANS SW 480V FST XFER	38.5 in	29.53 in	72.21 in	1336.0 lbs	0M-STEU600G1	0.108" CFS	3	Interpolated
600A STATIC TRANS SW 480V APC FST XFER	38.5 in	29.53 in	72.21 in	1510.0 lbs	0M-STEU600G1APC	0.108" CFS	3	Interpolated
600A STATIC TRANS SW 480V APC DYN DLAY	38.5 in	29.53 in	72.21 in	1510.0 lbs	0M-STEU600G0DYN	0.108" CFS	3	Interpolated
600A STATIC TRANS SW 480V DYN DLAY	38.5 in	29.53 in	72.21 in	1510.0 lbs	0M-STEU600G1DYN	0.108" CFS	3	Interpolated
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 EPSILON STS

Product Range Summary

Unit	Width	Depth	Height	Max. Weight	Part No.	Construction Material ^{1,2}	Notes	Test Status
Static Transfer Switch (STS) cont'd								
600A STATIC TRANS SW 440V STD XFER	38.5 in	29.53 in	72.21 in	1336.0 lbs	0M-STEU600S0	0.108" CFS	3	Interpolated
600A STATIC TRANS SW 440V FST XFER	38.5 in	29.53 in	72.21 in	1336.0 lbs	0M-STEU600S1	0.108" CFS	3	Interpolated
600A STATIC TRANS SW 600V STD XFER	38.5 in	29.53 in	72.21 in	1336.0 lbs	0M-STEU600L0	0.108" CFS	3	Interpolated
600A STATIC TRANS SW 600V FST XFER	38.5 in	29.53 in	72.21 in	1336.0 lbs	0M-STEU600L1	0.108" CFS	3	Interpolated
600A STATIC TRANS SW 575V STD XFER	38.5 in	29.53 in	72.21 in	1336.0 lbs	0M-STEU600Z0	0.108" CFS	3	Interpolated
600A STATIC TRANS SW 575V FST XFER	38.5 in	29.53 in	72.21 in	1336.0 lbs	0M-STEU600Z1	0.108" CFS	3	Interpolated
Notes								
1. All enclosures are NEMA 1 rated. 2. CFS= cold-formed carbon steel 3. Floor mounted.								

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**APC by Schneider Electric - MGE EPSILON STS
Product Range Summary**

Internal Components	Manufacturer	Part #	Testing Status
250A 3P Circuit Breaker	Square D	039-000025-0000	58596R11-UUT-1B
400A 3P Service Switch	Square D	530-0000310000B00	70102R12-UUT-2A
600A 3P Service Switch	Square D	042-000031-0001	58596R11-UUT-1A
SCR	Powerex	72-504422-02	58596R11-UUT-1A
		72-504421-02	70102R12-UUT-2A
	Westcode	72-504421-00	58596R11-UUT-1B
Transformer 100VA 208 to 600V	Square D	430-0000160001A00	58596R11-UUT-1A
Backfeed	General Electric	72-504217-00	70102R12-UUT-2A
		72-504217-01	58596R11-UUT-1A
	Ronken	72-504317-00	70102R12-UUT-2A
		72-504317-01	58596R11-UUT-1B
	Onyx Power	8-77783-01	58596R11-UUT-1B
			70102R12-UUT-2A

**APC - MGE Epsilon STS
Resonant Frequency Summary**

	Test Report 58596R11- UUT1A 600A Static Transfer Switch (STS)		Test Report 58596R11- UUT1B 200A Static Transfer Switch (STS)		Test Report 70102R12- UUT2A 400A Static Transfer Switch (STS) with Backfeed	
Direction	Frequency	Period	Frequency	Period	Frequency	Period
Front-Back	8.9 Hz	0.11 sec	11.5 Hz	0.09 sec	8.8 Hz	0.11 sec
Side-Side	8.5 Hz	0.12 sec	7.0 Hz	0.14 sec	6.5 Hz	0.15 sec
Vertical	N/A	N/A	N/A	N/A	28.0 Hz	0.04 sec

4.2 Test Summary

58596R11-UUT 1A

600A Static Transfer Switch (STS) 208V
 0.108" Cold-Formed Carbon Steel
 38.5"W x 29.53"L x 72.21"H
 Weight: 1336 lbs

Floor mounted with (7) ½"-13 Grade 5 bolts



58596R11-UUT 1A is the unit on the right

600A Static Trans SW 208V– 58596R11-UUT1A – Internal Components

Internal Components	Manufacturer	Part #
600A 3P Service switch	Square D	042-000031-0001
SCR	Powerex	72-504422-02
Transformer 100VA 208 to 600V	Square D	430-0000160001A00
Backfeed	General Electric	72-504217-00
		72-504217-01

58596R11-UUT 1B (Smallest)

200A Static Transfer Switch (STS) 480V
 0.108" Cold-Formed Carbon Steel
 24.5"W x 29.53"L x 72.21"H
 Weight: 910 lbs

Floor mounted with (7) ½"-13 Grade 5 bolts



58596R11-UUT 1B is the unit on the left

200A Static Trans SW 480V– 58596R11-UUT1B – Internal Components

Internal Components	Manufacturer	Part #
250A 3P Service switch	Square D	039-000025-0000
SCR	Powerex	72-504421-02
	Westcode	72-504421-00
Transformer 100VA 208 to 600V	Square D	430-0000160001A00
Backfeed	Ronken	72-504317-00
		72-504317-01

70102R12-UUT 2A (Largest)

400A Static Transfer Switch (STS) 480V with Backfeed
 0.108" Cold-Formed Carbon Steel
 28.5"W x 29.5"L x 72.2"H
 Weight: 1510 lbs

Floor mounted with (7) ½"-13 Grade 5 bolts



400A Static Trans SW 480V– 70102R12-UUT 2A– Internal Components

Internal Components	Manufacturer	Part #
400A 3P Service switch	Square D	530-0000310000B00
SCR	Powerex	72-504422-02
Transformer 100VA 208 to 600V	Square D	430-0000160001A00
Backfeed	General Electric	72-504217-00
		72-504217-01
	Onyx Power	8-77783-01