

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

APPLICATION FOR OSHPD SPECIAL SEISMIC	OFFICE OSE ONET				
CERTIFICATION PREAPPROVAL (OSP)	APPLICATION #: OSP-0698				
OSHPD Special Seismic Certification Preapproval (OSP)					
Type: X New Renewal					
Manufacturer Information					
Manufacturer: Schneider Electric					
Manufacturer's Technical Representative: Hao Ding					
Mailing Address: 330 Weakley Ln., Smyrna, TN 37167					
Telephone: (561) 848-0396 Email: hao.ding@non.se.co	om				
Product Information					
Product Name: UPS and Batteries	T.				
Product Type: Batteries OSP-0698					
Product Model Number: Galaxy Lithium Ion Battery Cabinet	···············				
General Description: Li-ion Battery Cabinet with 13,16, or 17 modules.					
Mounting Description: Rigid, Floor Mounted					
Tested Seismic Enhancements: None DATE: 07/27/2021					
Applicant Information	200				
Applicant Information					
Applicant Company Name: Structural Integrity Associates, Inc.					
Contact Person: Galen Reid					
Mailing Address: 233 SW Wilson Ave Suite 101, Bend, OR 97702					
Telephone: (541) 604-7225 Email: greid@structint.com					





Title: Manager, TRU Compliance



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

California Licensed Structural Engineer Responsible f	or the Engineering and Test Report(s)								
Company Name: STRUCTURAL INTEGRITY ASSOCIATES, IN	IC.								
Name: Andrew Coughlin	California License Number: S6082								
Mailing Address: 5215 Hellyer Ave, Suite 101, San Jose, CA 95	5138-1025								
Telephone: (415) 635-8461 Email: acoughlin@structint.com									
Certification Method									
GR-63-Core X ICC-ES AC156	IEEE 344								
Other (Please Specify):									
EORC	ODECO								
Testing Laboratory	MP								
Company Name: CHINA TELECOMMUNICATION TECHNOLO	OGY LABS (CTTL) Contact								
Person: Lanfang Cui	0603								
Mailing Address: 299 Tengfei Road, Industrial Park, Lianchi Dis	strict, Baoding, Hebei, China								
Telephone: +83 0312-6798950 Email: c	cuilanfang@caict.ac.cn								
DATE: 07/2	7/2021								
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#### OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT **FACILITIES DEVELOPMENT DIVISION**

#### **Seismic Parameters**

Design Basis of Equipment or Components (Fp/Wp) = 1.44 (SDS = 2.0); 1.13 (SDS = 2.5)

SDS (Design spectral response acceleration at short period, g) = 2.0 (z/h = 1); 2.5 (z/h = 0)

1.0 ap (Amplification factor) =

Rp (Response modification factor) = 2.5

 $\Omega_0$  (System overstrength factor) = 2.0

1.5 Ip (Importance factor) =

z/h (Height ratio factor) = 1 and 0

Natural frequencies (Hz) = See Attachment

Overall dimensions and weight = See Attachment

#### OSHPD Approval (For Office Use Only) - Approval Expires on 12/31/2025

Date: 7/27/2021

Name: Mohammad Karim

Title:

Supervisor, Health Facilities

Special Seismic Certification Valid Up to: SDS (g) = See Above

z/h =

See Above

Condition of Approval (if applicable):





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### **SPECIAL SEISMIC CERTIFICATION CERTIFIED COMPONENT MATRIX**



#### 2001335-CR-001-R0

Manufacturer:	Schneider Electric	TABLE 1
Model Line:	Galaxy Lithium Ion Battery Cabinet	IADLE I

Certified Product Construction Summary:

Carbon steel cabinet

**Certified Options Summary:** 

13, 16, or 17 Li-ion battery modules. Standalone or Ganged

**Mounting Configuration:** 

Mounting Configuration:

Base mounted - rigid

Note: Installed mounting configuration must be of similar configuration and equivalent strength and stiffness to those tested.

**Building Code: CBC 2019** 

Seismic Certification Limits:

 $S_{DS} = 2.0 g z/h = 1.0$ 

 $S_{DS} = 2.5 g$  z/h=0.0

I<sub>P</sub>= 1.5

Madelline	Made	Dir	mensions	(in)	Weight	Notes	
Model Line	Model	Depth	Width	Height	(lb)	Notes	UUT
	LIBSESM <mark>G13U</mark> L	23.2	25.6	77.6	866		Interp.
	LIBSESMG13IEC	B <sub>23.2</sub> VIC	25.6	77.6	866		2
Galaxy Lithium Ion	LIBSESMG16UL	23.2	25.6	77.6	1036		Interp.
Battery Cabinets	LIBSESMG16IEC	D 23.2	0 25.67	207.6	1036		Interp.
	LIBSESMG17UL	23.2	25.6	77.6	1069	9\	3
	LIBSESMG17IEC	23.2	25.6	77.6	1069		1,3
		6		311	(6.)		
		PNIA			00		
		1/4	BUILD	DING			

## SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENT MATRIX

#### 2001335-CR-001-R0



Table Description: Electrical Components Manufacturer: Schneider Electric **TABLE 2** Model Line: Galaxy Lithium Ion Battery Cabinet  $S_{DS} = 2.0 g z/h = 1.0$ Building Code: CBC 2019 **Seismic Certification Limits:**  $I_{P} = 1.5$  $S_{DS} = 2.5 g z/h = 0.0$ Description **Component Type** Manufacturer Model UUT **Notes** LV438279 **IEC Breaker** 1,2,3 Molded Case Circuit Schneider Electric Breaker **UL** Breaker LLF37060D33 3 IEC Switchgear Box ON-87889 1,2,3 Switchgear Box Schneider Electric **UL Switchgear Box** 0N-2191 3 Battery Module Type A 1,2,3 LIBSMG95MODA **Battery Modules** Samsung SDI LIBSMG95MODB Battery Module Type B 1,2,3 0N-2192 SMPS Box IEC 1,2,3 SMPS Box Schneider Flectric 0N-1588 SMPS Box UL 3





Manufacturer: Model Line:	Schneider Electric Galaxy Lithium Ion Ba	attery Cabinet				
UUT	Unit Description	Report Number	Testing Laboratory	S <sub>DS</sub>	z/h	I <sub>P</sub>
1	LIBSESMG17IEC	B20X80867	China Telecommunication Technology Labs	2.0 2.5	1 0	1.5
2	LIBSESMG13IEC	B20X80868	China Telecommunication Technology Labs	2.0 2.5	1 0	1.5
3	LIBSESMG17IEC + LIBSESMG17UL	B21X80065	China Telecommunication Technology Labs	2.0 2.5	1 0	1.5
		FOR CODE C	OM			
	Į.	OSHPD	72			
	REL	OSP-0698	- C			
		By: Mohammad Ka	rim			
		W.X.				
	CA	DATE: 07/21/202				
		co.	OF.			
		NIA BUILDING	COL			
Notes:		1	1		1	

#### 2001335-CR-001-R0



**UUT 1** 

**Manufacturer:** Schneider Electric

**Model Line:** Galaxy Lithium Ion Battery Cabinet

Model Number: LIBSESMG17IEC Serial Number: N/A

**Product Construction Summary:** 

Carbon steel cabinet

#### **Options/Subcomponent Summary:**

17 battery modules (8 Type A, 9 Type B), LV438279 Molded Case Circuit Breaker, 0N-87889 IEC Switchgear Box, 0N-2192 SMPS Box IEC

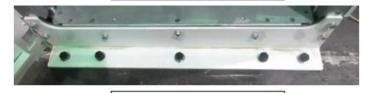
			UUT P	roperties		7							
Weight Dimension (in)					Lowest Natural Frequency (Hz)								
(lb)	Depth Width SHeight 98				Front	-Back	Side	-Side	Ver	tical			
1069	23.2	2 25.6 77.6			14.8			11.9		>33.3			
		UUT Highe	st Passed S	eismic Run	Informa	tion							
Buildi	Building Code Test Criteria S <sub>D</sub>				z/h	I <sub>P</sub> O	A <sub>FLX-H</sub> (g)	A <sub>RIG-H</sub> (g)	A <sub>FLX-V</sub> (g)	A <sub>RIG-V</sub> (g)			
CBC 2019		ICC ES AC1E	ICC-ES AC156 (2018) / 2		1.0	1.5	3.20	2.40	1.67	0.67			
		ICC-E3 ACIS			0.0	1.5	3.20						

#### **Test Mounting Details:**





Rear Seismic BKT



Front Seismic BKT

UUT was rigid base mounted to the shake table using (5) Grade 8.8 M12 Bolts in the front bracket (PN: 870-51164A), and (4) Grade 8.8 M12 Bolts in the rear bracket (PN: 870-51147).

Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test. Contents were included in testing per operating conditions.

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#### 2001335-CR-001-R0



UUT 2

**Manufacturer:** Schneider Electric

**Model Line:** Galaxy Lithium Ion Battery Cabinet

Model Number: LIBSESMG13IEC Serial Number: N/A

**Product Construction Summary:** 

Carbon steel cabinet

#### Options/Subcomponent Summary:

13 battery modules (6 Type A, 7 Type B), LV438279 Molded Case Circuit Breaker, 0N-87889 IEC Switchgear Box, 0N-2192 SMPS Box IEC

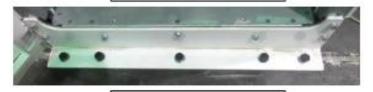
			UUT Pro	perties		7						
Weight		Dimension (in	n (in)			Lowest Natural Frequency (Hz)						
(lb)	Depth Width Sheight 98				Front	-Back	Side-Side		Vertical			
866	23.2	25.6 77.6			14	14.8		11.9		>33.3		
		UUT Highe	st Passed Se	ismic Run	Informa	tion						
Buildi	Building Code Test Criteria			S <sub>DS</sub> (g)	z/h	I <sub>P</sub> O	A <sub>FLX-H</sub> (g)	A <sub>RIG-H</sub> (g)	A <sub>FLX-V</sub> (g)	A <sub>RIG-V</sub> (g)		
CBC 2019		ICC EC AC1EC/2010\\/		2,0	1.0	1 -	2.20	2.40	1.67	0.67		
		ICC-ES ACIS	ICC-ES AC156 (2018) /2		0.0	1.5	3.20					

#### **Test Mounting Details:**





Rear Seismic BKT



Front Seismic BKT

UUT was rigid base mounted to the shake table using (5) Grade 8.8 M12 Bolts in the front bracket (PN: 870-51164A), and (4) Grade 8.8 M12 Bolts in the rear bracket (PN: 870-51147).

Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test. Contents were included in testing per operating conditions.

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#### 2001335-CR-001-R0



UUT3

Manufacturer: Schneider Electric

Model Line: Galaxy Lithium Ion Battery Cabinet

Model Number: LIBSESMG17IEC + LIBSESMG17UL Serial Number: N/A

**Product Construction Summary:** 

Carbon steel cabinet

#### Options/Subcomponent Summary:

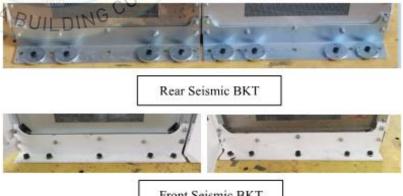
17 battery modules per section (8 Type A, 9 Type B), LV438279 Molded Case Circuit Breaker, LLF37060D33 Molded Case Circuit Breaker, 0N-87889 IEC Switchgear Box, 0N-2191 UL Switchgear Box, 0N-2192 SMPS Box IEC, 0N-1588 SMPS Box UL

			UUT Pro	operties		7					
Weight <sup>1</sup> Dimension (in)					Lowest Natural Frequency (Hz)						
(lb)	Depth	Pepth Width SHeight 98				-Back	Side	Side-Side		Vertical	
2138	23.2	51.2 77.6			///////////////////// <b>1</b>	12.1		12.9		>33.3	
		UUT Highe	st Passed Se	ismic Run	Informa	tion					
Buildi	Building Code Test Criteria			S <sub>DS</sub> (g)	z/h	I <sub>P</sub> O	A <sub>FLX-H</sub> (g)	A <sub>RIG-H</sub> (g)	A <sub>FLX-V</sub> (g)	A <sub>RIG-V</sub> (g)	
CBC 2019		ICC-ES AC156 (2018)7/2		2,0	1.0	1.5	3.20	2.40	1.67	0.67	
				2.5	0.0	1.5	3.20				

#### **Test Mounting Details:**



<sup>1</sup>Combined weight of ganged cabinets.



Front Seismic BKT

UUT was rigid base mounted to the shake table using (10) Grade 8.8 M12 Bolts in the front brackets (PN: 870-51164A), and (8) Grade 8.8 M12 Bolts in the rear brackets (PN: 870-51147)

Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test. Contents were included in testing per operating conditions.