



DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION  
FACILITIES DEVELOPMENT DIVISION

APPLICATION FOR HCAI SPECIAL SEISMIC  
CERTIFICATION PREAPPROVAL (OSP)

OFFICE USE ONLY

APPLICATION #: OSP-0780

HCAI Special Seismic Certification Preapproval (OSP)

Type:  New  Renewal

Manufacturer Information

Manufacturer: Shenzhen Center Power Tech Co., Ltd.

Manufacturer's Technical Representative: Lu Cailing

Mailing Address: #9 Plant South Building, Dapeng Street, Dapeng New District, Shenzhen, 518120 Guangdong, P.R. China

Telephone: +86 755 66851118

Email: lucailing@vision-batt.com

Product Information

Product Name: UPS and Batteries

Product Type: Batteries

Product Model Number: Vision Revo LFP

General Description: 50Ah and 100Ah battery cabinets

Mounting Description: Rigid, Floor Mounted

Tested Seismic Enhancements: None

Applicant Information

Applicant Company Name: Pre Compliance

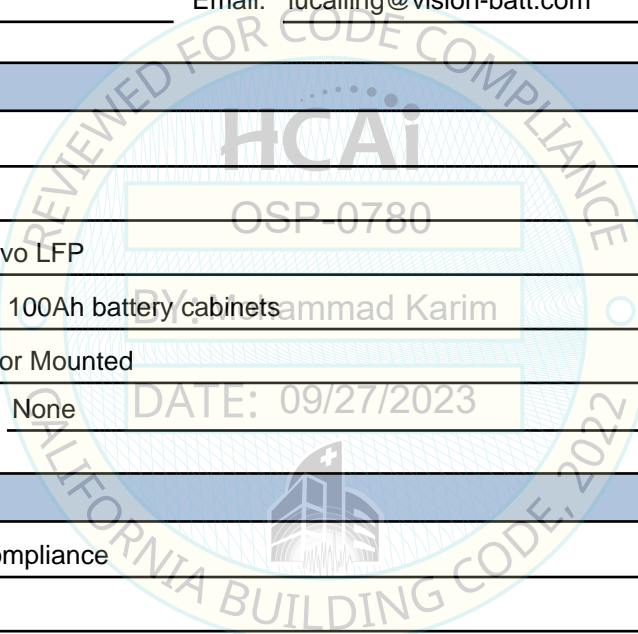
Contact Person: Galen Reid

Mailing Address: 36 SW Wall Street, Bend, OR 97702

Telephone: (541) 241-2301

Email: galen@go-pre.com

Title: Principal & Program Manager





**DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION  
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**California Licensed Structural Engineer Responsible for the Engineering and Test Report(s)**

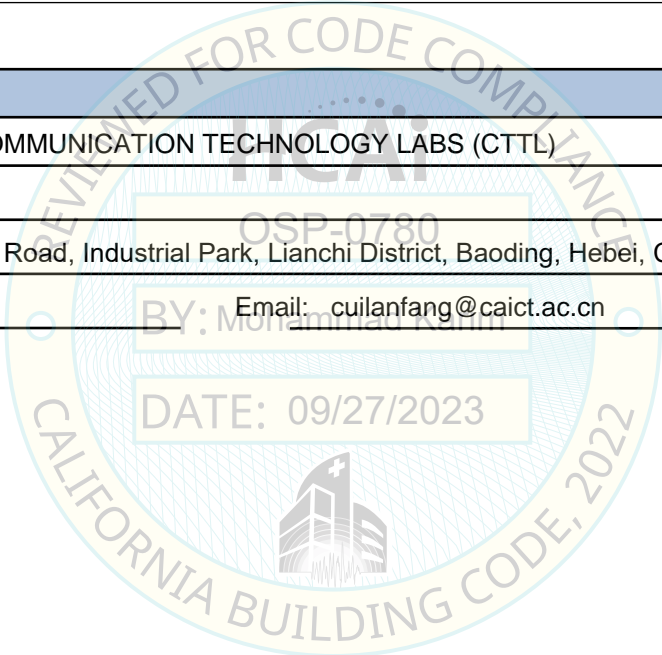
Company Name: PRE COMPLIANCE  
Name: Andrew Coughlin California License Number: S6082  
Mailing Address: 36 SW Wall Street, Bend, OR 97702  
Telephone: (415) 635-8461 Email: Andy@go-pre.com

**Certification Method**

GR-63-Core       ICC-ES AC156       IEEE 344       IEEE 693       NEBS 3  
 Other (Please Specify): \_\_\_\_\_

**Testing Laboratory**

Company Name: CHINA TELECOMMUNICATION TECHNOLOGY LABS (CTTL)  
Contact Person: Cuilan Fang  
Mailing Address: No.299, Tengfei Road, Industrial Park, Lianchi District, Baoding, Hebei, China  
Telephone: +86 0312-6798950 Email: cuilanfang@caict.ac.cn





**DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION  
FACILITIES DEVELOPMENT DIVISION**

**Seismic Parameters**

Design Basis of Equipment or Components ( $F_p/W_p$ ) = 1.13 (z/h=1); 0.68 (z/h=0)

SDS (Design spectral response acceleration at short period, g) = 1.5

$a_p$  (Amplification factor) = 2.5

$R_p$  (Response modification factor) = 6.0

$\Omega_0$  (System overstrength factor) = 2.0

$I_p$  (Importance factor) = 1.5

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

Natural frequencies (Hz) = See Attachment

Overall dimensions and weight = See Attachment

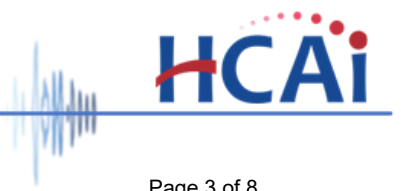
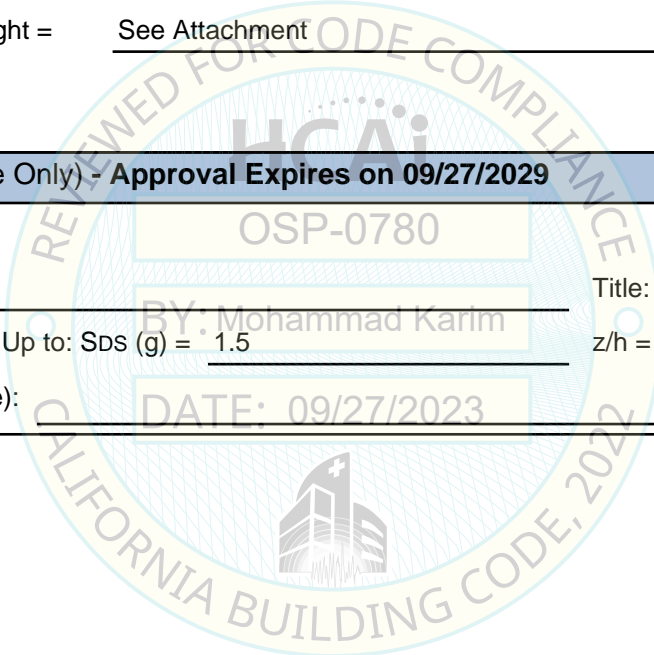
**HCAI Approval (For Office Use Only) - Approval Expires on 09/27/2029**

Date: 9/27/2023

Name: Mohammad Karim Title: Supervisor, Health Facilities

Special Seismic Certification Valid Up to: SDS (g) = 1.5 z/h = See Above

Condition of Approval (if applicable): DATE: 09/27/2023



**Manufacturer:** Shenzhen Center Power Tech. Co., Ltd  
**Product Type:** Battery Cabinets  
**Model Line:** Vision Revo

**Seismic Parameters**  
 $S_{DS} = 1.5g$  for  $z/h=1$   
 $S_{DS} = 1.5g$  for  $z/h=0$   
 $I_p = 1.5$

**Building Codes**  
**CBC 2022**

## TABLE 1

Mounting Configuration: Base Mounted - Rigid

### Construction Summary

Welded carbon steel enclosure

### Options Summary

50Ah or 100Ah Battery Modules

Model Line	Model	Max. Dimensions (in)			Wt. (lb)	Notes	UUT
		D	W	H			
Vision Revo LFP 50Ah	TP10/TPH20(51.2V50Ah)	39.4	23.6	78.7	461	1 Module	Interp.
	TP20/TPH40(102.4V50Ah)	39.4	23.6	78.7	542	2 Modules	Interp.
	TP30/TPH60(153.6V50Ah)	39.4	23.6	78.7	624	3 Modules	Interp.
	TP40/TPH80(204.8V50Ah)	39.4	23.6	78.7	705	4 Modules	Interp.
	TP50/TPH100(256V50Ah)	39.4	23.6	78.7	787	5 Modules	Interp.
	TP60/TPH120(307.2V50Ah)	39.4	23.6	78.7	869	6 Modules	Interp.
	TP70/TPH140(358.4V50Ah)	39.4	23.6	78.7	950	7 Modules	Interp.
	TP80/TPH160(409.6V50Ah)	39.4	23.6	78.7	1032	8 Modules	Interp.
	TP90/TPH180(460.8V50Ah)	39.4	23.6	78.7	1113	9 Modules	Interp.
	TP100/TPH200(512V50Ah)	39.4	23.6	78.7	1195	10 Modules	Interp.
	TP110/TPH220(563.2V50Ah)	39.4	23.6	78.7	1276	11 Modules	Interp.
	TP120/TPH240(614.4V50Ah)	39.4	23.6	78.7	1358	12 Modules	Interp.
	TP130/TPH260(665.6V50Ah)	39.4	23.6	78.7	1440	13 Modules	Interp.
	TP140/TPH280(716.8V50Ah)	39.4	23.6	78.7	1521	14 Modules	2
Vision Revo LFP 100Ah	TP20(51.2V100Ah)	39.4	23.6	78.7	595	1 Module	Interp.
	TP40(102.4V100Ah)	39.4	23.6	78.7	750	2 Modules	Interp.
	TP60(153.6V100Ah)	39.4	23.6	78.7	904	3 Modules	Interp.
	TP80(204.8V100Ah)	39.4	23.6	78.7	1058	4 Modules	Interp.
	TP100(256V100Ah)	39.4	23.6	78.7	1213	5 Modules	Interp.
	TP120(307.2V100Ah)	39.4	23.6	78.7	1367	6 Modules	Interp.
	TP140(358.4V100Ah)	39.4	23.6	78.7	1521	7 Modules	Interp.
	TP160(409.6V100Ah)	39.4	23.6	78.7	1676	8 Modules	Interp.
	TP180(460.8V100Ah)	39.4	23.6	78.7	1830	9 Modules	Interp.
	TP200(512V100Ah)	39.4	23.6	78.7	1987	10 Modules	1



# SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENTS

Pre No. CC231341-01-R1

**Manufacturer:** Shenzhen Center Power Tech. Co., Ltd  
**Product Type:** Battery Cabinets  
**Model Line:** Vision Revo

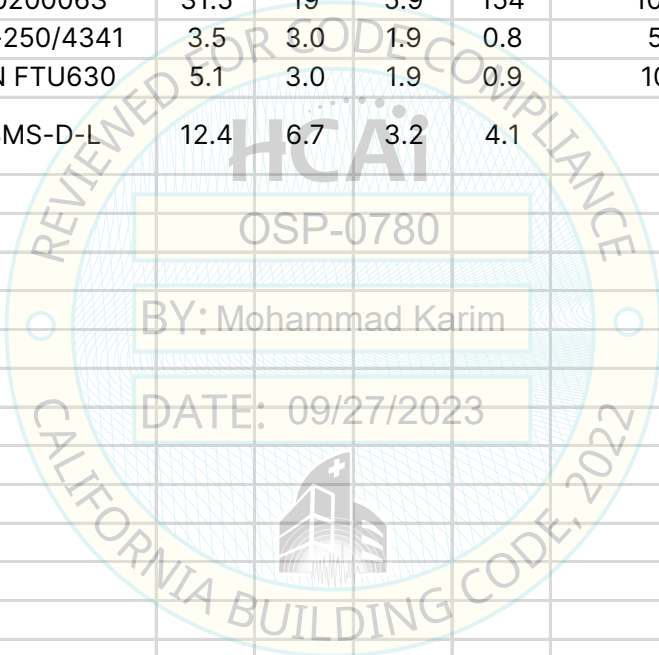
**Seismic Parameters**  
 $S_{DS} = 1.5g$  for  $z/h=1$   
 $S_{DS} = 1.5g$  for  $z/h=0$   
 $I_p = 1.5$

**Building Codes**  
**CBC 2022**

## TABLE 2

Table Description: Electrical Subcomponents

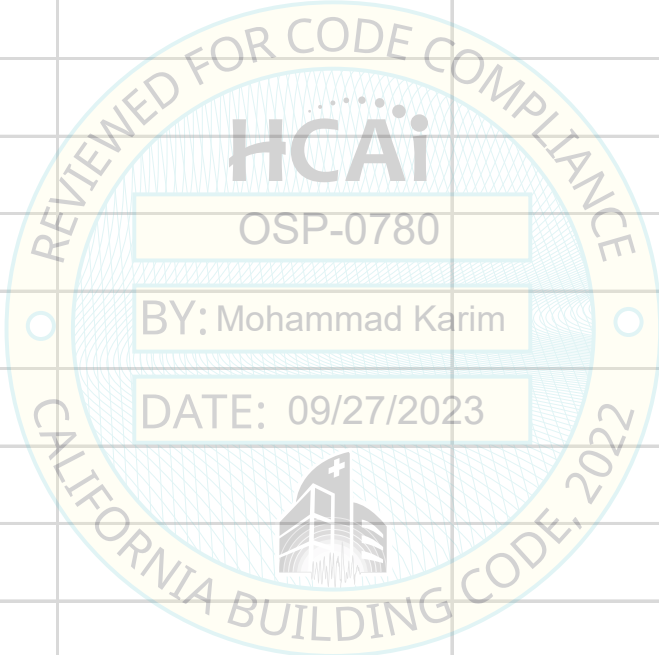
Component (Manufacturer)	Model	Dimensions (in)			Wt. (lb)	Notes	UUT
		D	W	H			
Battery Modules (Vision)	40301010003S	27.2	19	4.2	82	50Ah Battery Module	2
	40301020006S	31.5	19	5.9	154	100Ah Battery Module	1
Output Switch (Vision)	NDM3Z-250/4341	3.5	3.0	1.9	0.8	50Ah Output Switch	2
	TS630N FTU630	5.1	3.0	1.9	0.9	100Ah Output Switch	1
Monitor (Vision)	LU-GBMS-D-L	12.4	6.7	3.2	4.1		1,2



# SPECIAL SEISMIC CERTIFICATION TESTING SUMMARY

Pre No. CC231341-01-R1

UUT	Model	Test Report	Test Laboratory	S <sub>DS</sub>	z/h	I <sub>p</sub>
1	TP200 (100Ah)	B23X80902	CAICT <sup>1</sup>	1.5	1 0	1.5
2	TP140 (50Ah)	B23X80903	CAICT <sup>1</sup>	1.5	1 0	1.5



<sup>1</sup>CAICT = China Academy of Information and Communications Technology

## UUT 1

Test Report# B23X80902

**Manufacturer:** Shenzhen Center Power Tech. Co., Ltd  
**Model Line:** Vision Revo  
**Model Number:** TP200 (100Ah)  
**Serial Number:** OJD6AASA39010

Highest Passed Test Level						
<b>S<sub>DS</sub></b>	<b>z/h</b>	<b>I<sub>p</sub></b>	<b>A<sub>flx-h</sub></b>	<b>A<sub>rig-h</sub></b>	<b>A<sub>flx-v</sub></b>	<b>A<sub>rig-v</sub></b>
1.5	1		2.4	1.8	1.0	0.4
1.5	0	1.5				

Dimensions/Weights			
<b>Depth (in)</b>	<b>Width (in)</b>	<b>Height (in)</b>	<b>Weight (lbs.)</b>
39.4	23.6	78.7	1987

Lowest Natural Frequency (Hz)		
<b>Front-Back</b>	<b>Side-Side</b>	<b>Vertical</b>
12.89	5.27	>33.3

<b>Building Codes</b>	<b>Test Criteria</b>	<b>Construction/Option Summary</b>
CBC 2022	ICC-ES AC156	Welded carbon steel enclosure

**UUT Mounting Details:** **List of Included Subcomponents**



Description	Model #	Wt. (lbs.)
100Ah Li-ion Battery Module (Qty. 10)	40301020006S	154 ea.
Output switch	TS630N FTU630	0.9
Monitor	LU-GBMS-D-L	4.1

UUT was rigid base mounted to the table using (8) Grade 8.8 - M16 bolts.  
 Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

## UUT 2

Test Report# B23X80903

**Manufacturer:** Shenzhen Center Power Tech. Co., Ltd  
**Model Line:** Vision Revo  
**Model Number:** TP140 (50Ah)  
**Serial Number:** OJD7AG0S35001

Highest Passed Test Level						
S <sub>DS</sub>	z/h	I <sub>p</sub>	A <sub>flx-h</sub>	A <sub>rig-h</sub>	A <sub>flx-v</sub>	A <sub>rig-v</sub>
1.5	1	1.5	2.4	1.8	1.0	0.4
1.5	0					

Dimensions/Weights			
Depth (in)	Width (in)	Height (in)	Weight (lbs.)
39.4	23.6	78.7	1521

Lowest Natural Frequency (Hz)		
Front-Back	Side-Side	Vertical
10.35	4.88	23.24

### Building Codes

CBC 2022

### Test Criteria

ICC-ES AC156

### Construction/Option Summary

Welded carbon steel enclosure

### UUT Mounting Details:



UUT was rigid base mounted to the table using (8) Grade 8.8 - M16 bolts.  
 Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

### List of Included Subcomponents

Description	Model #	Wt. (lbs.)
50Ah Li-ion Battery Module (Qty. 14)	40301010003S	82 ea.
Output switch	NDM3Z-250/4341	0.8
Monitor	LU-GBMS-D-L	4.1