



**DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION  
OFFICE OF STATEWIDE HOSPITAL PLANNING AND DEVELOPMENT**

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

OFFICE USE ONLY

**APPLICATION #: OSP-0831**

**HCAI Special Seismic Certification Preapproval (OSP)**

Type:  New  Renewal

**Manufacturer Information**

Manufacturer: SAI Advanced Power Solutions

Manufacturer's Technical Representative: Bethel Johnson

Mailing Address: 11333 Addison Ave., Suite 100, Franklin Park, IL 60131

Telephone: (708) 450-0990 Email: bethel.johnson@sai-aps.com

**Product Information**

Product Name: Profusion PDU & UL UL891 Switchboard

Product Model Number(s): Varies, see product table

Product Category: Switchgear/Switchboards

Product Sub-Category: Power Distribution Units

General Description: Profusion Power Distribution (300 kVA to 1060 kVA) and UL891 Switchboard

Mounting Description: Base Mounted Rigid -

Tested Seismic Enhancements: Seismic enhancements made to the test units and/or modifications required to address anomalies during the tests shall be incorporated into the production units.

**Applicant Information**

Applicant Company Name: Pre Compliance

Contact Person: Katie Braman

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

Telephone: (541) 241-2310 Email: katie@go-pre.com

Title: Principal & Program Manager





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

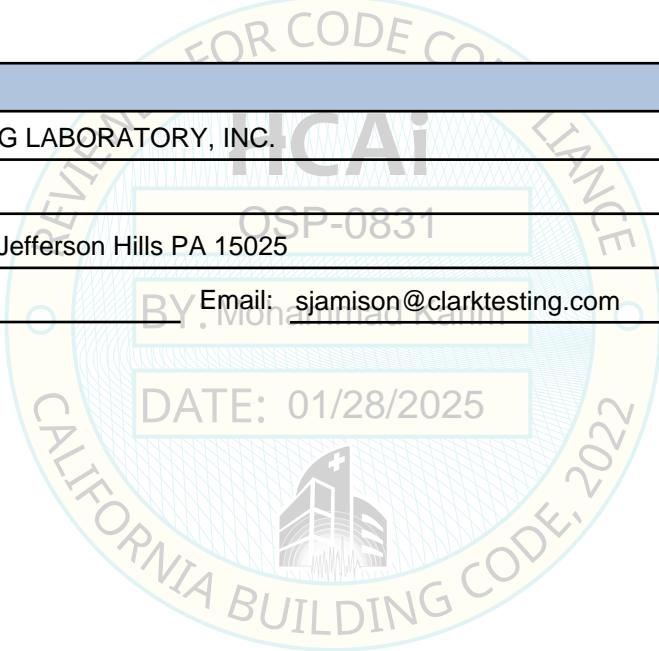
Company Name: PRE COMPLIANCE  
 Name: Andrew Coughlin California License Number: S6082  
 Mailing Address: 36 SW Wall Street, Bend, OR 97702  
 Telephone: (415) 635-8461 Email: Andy@go-pre.com

**Certification Method**

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

**Testing Laboratory**

Company Name: CLARK TESTING LABORATORY, INC.  
 Contact Person: Scott Jamison  
 Mailing Address: 1801 Route 51, Jefferson Hills PA 15025  
 Telephone: (412) 387-1001 Email: sjamison@clarktesting.com





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**Seismic Parameters**

Design Basis of Equipment or Components ( $F_p/W_p$ ) = PDU (1.0 @  $z/h = 1$ , 1.02 @  $z/h = 0$ ), Switchboard (0.62 @  $z/h = 1$ , 0.60 @  $z/h=0$ )

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SDS (Design spectral response acceleration at short period, g) = See Product Tables

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$a_p$  (Amplification factor) = 2.5

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$R_p$  (Response modification factor) = 6.0

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$\Omega_0$  (System overstrength factor) = 2.0

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$I_p$  (Importance factor) = 1.5

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

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Natural frequencies (Hz) = See Attachment

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Overall dimensions and weight = See Attachment

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**HCAI Approval (For Office Use Only) - Approval Expires on 01/28/2031**

Date: 1/28/2025

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Name: Mohammad Karim Title: Supervisor, Health Facilities

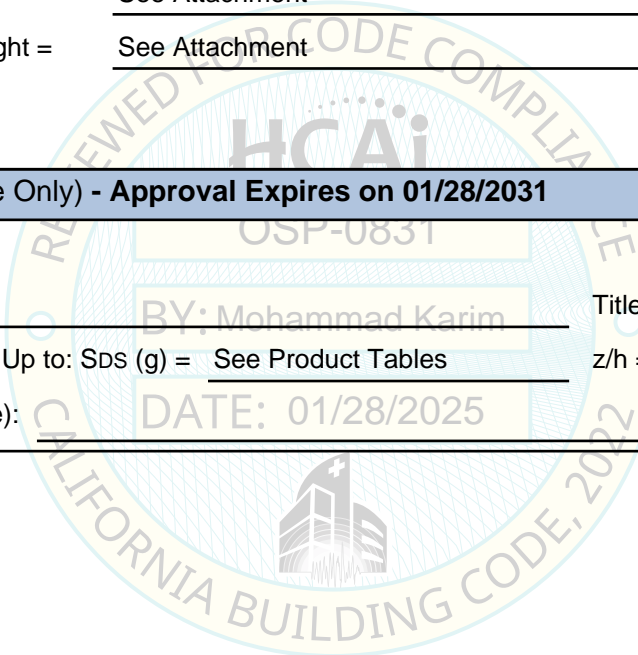
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Special Seismic Certification Valid Up to: SDS (g) = See Product Tables z/h = 1

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Condition of Approval (if applicable):

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**Manufacturer:** SAI Advanced Power Solutions  
**Product Type:** Power Distribution Units (PDU)  
**Model Line:** Profusion PDU

### Seismic Parameters

$S_{DS} = 1.33g$  for  $z/h=1$        $I_p = 1.5$   
 $S_{DS} = 2.27g$  for  $z/h=0$

### Building Codes

**CBC 2022**

## TABLE 4

### Miscellaneous Electrical

Component (Manufacturer)	Model	Description	Notes	UUT
CPU (GE)	IC695CPE305	Rx3i Series, 1.1GHz, RS-232 Serial Port		2
HMI Touchscreen (B & R Industries)	4PPC30.101G-23B	10.1", 1 ETH, 2 USB, 1 RS485, 24VDC		1,2
Ethernet Port (MOXA)	852-1102	8-Port Ethernet Switch		1
Ethernet Port (Phoenix)	2702881	8-Port Ethernet Switch		2
Power Meter (Schneider Electric)	P480-415-300	Digital, Voltage/Frequ-50/60HZ		2
Power Meter (Socomec)	P480-415-500	DIRIS A-200 Power quality meter		1
Power Meter (Schweizer)	P480-415-600	Power Quality and Revenue Meter 125VDC		1
Power Supply (Socomec)	P480-415-800	30W Power Supply		1
Power Supply (Sola)	P480-415-1060	20A, 240W, 24VDC Output		1
	SDN1024100C	10A, 240W, 24VDC Output		2
Voltage Acquisition Module (Socomec)	48290102	DIRIS Digiware U-30 Voltage		1,2
Current Module (Socomec)	48290130	DIRIS Digiware I-35 3xl		1,2
Digital Inputs (Socomec)	48290140	DIRIS Digiware IO-10 4DI/2DO		1,2
Terminating Resistor (Socomec)	48290180	DIRIS Digiware Bus RJ45		1,2









## UUT 1

Test Report# JID 23-01750

**Manufacturer:** SAI Advanced Power Solutions  
**Model Line:** Profusion PDU  
**Model Number:** P480-415-1060  
**Serial Number:** 221507

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>
1.27	1					
2.27	0	1.5	2.27	1.52	1.52	0.61

Dimensions/Weights			
Depth (in)	Width (in)	Height (in)	Weight (lbs.)
64	76	84	9,490

Lowest Natural Frequency (Hz)		
Front-Back	Side-Side	Vertical
4.4	5.2	20.8

Building Codes
CBC 2022

Test Criteria
ICC-ES AC156

Construction/Option Summary
Carbon Steel, mounted to floor stand PN: PFS-1

### UUT Mounting Details:

### List of Included Subcomponents



UUT mounted on floor stand using eight (8) 5/8-11 Grade 5 hex bolts, washers, and lock washers. The eight legs of stand was welded to the shake table. Four (4) 1/4" fillet welds approximately 1-1/2" long per leg.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

Description	Model #
SACE EMAX2 Breaker	1SDA077323R1
TMAX XT2-XT5 Breaker	1SDX259984R1
TMAX XT2-XT5 Breaker	1SDA102530R1
Ethernet Port	852-1102
HMI Touchscreen	4PPC30.101G-23B
Power Meter	P480-415-500
Power Meter	P480-415-600
Power Supply	P480-415-800
Power Supply	P480-415-1060
Voltage Acquisition Module	48290102
Current Module	48290130
Digital Inputs	48290140
Terminating Resistor	48290180
Bluetooth	48290221
Transformer	9070T1000D1
Surge Protector PSP C Series	PSP277YC22T2FC
Sensor	48290574
Transformer	SGB-600/0.48/0.415
Relay	CT101-202-XX

## UUT 2

Test Report# JID 23-01750

**Manufacturer:** SAI Advanced Power Solutions  
**Model Line:** Profusion PDU  
**Model Number:** P480-415-600  
**Serial Number:** 2216186-000-007

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>
2.0	1					
2.5	0	1.5	3.2	2.4	1.68	0.68

Dimensions/Weights			
Depth (in)	Width (in)	Height (in)	Weight (lbs.)
52	72	84	8,632

Lowest Natural Frequency (Hz)		
Front-Back	Side-Side	Vertical
6.8	12.0	26.3

Building Codes
CBC 2022

Test Criteria
ICC-ES AC156

Construction/Option Summary
Carbon Steel

### UUT Mounting Details:



UUT was mounted to the shake table using eight (8) 3/4"-10 SAE grade 5 hex bolts with washers, and lock washers torqued to 150 ft.-lbs.

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 #
SACE EMAX2 Breaker	1SDA077313R1
TMAX XT2-XT5 Breaker	1SDX259984R1
TMAX XT2-XT5 Breaker	1SDA102530R1
Ethernet Port	2702881
HMI Touchscreen	4PPC30.101G-23B
Power Meter	P480-415-300
Power Meter	P480-415-600
Power Supply	SDN1024100C
CPU	IC695CPE305
Voltage Acquisition Module	48290102
Current Module	48290130
Digital Inputs	48290140
Terminating Resistor	48290180
Bluetooth	48290221
Transformer	9070T1000D1
Surge Protector PSP C Series	PSP277YC42T2FC
Relay	CT101-202-XX
Transformer	SGB-600/0.48/0.415

