



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-0201

HCAI Special Seismic Certification Preapproval (OSP)

Type: ☐ New ☒ Renewal

Manufacturer Information

Manufacturer: Functional Devices, Inc.

Manufacturer's Technical Representative: Samuel Klennert

Mailing Address: 101 Commerce Drive, Sharpville, IN 46068

Telephone: (765) 416-6810

Email: s.klennert@functionaldevices.com

Product Information

Product Name: Plus Series Isolated Power System Panels

Product Model Number(s): See attached

Product Category: Power Isolation and Correction Systems

Product Sub-Category: Power Isolation and Correction Systems

General Description: Units are 40 VA to 500VA AC power supplies with transformers capable of converting voltage

Mounting Description: Wall Mounted Rigid -

Tested Seismic Enhancements: None

Applicant Information

Applicant Company Name: DCL Labs, LLC

Contact Person: Kelly Laplace

Mailing Address: 1315 Greg Street, Suite 109, Sparks, NV 89431

Telephone: (775) 358-5085

Email: kelly.laplace@thvmcgroup.com

Title: Vice President of Sales: Test and Measurement Division



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

Company Name: THE VMC GROUP

Name: Kenneth Tarlow

California License Number: S2851

Mailing Address: 980 9th Street, 16th Floor, Sacramento, CA 95814

Telephone: (832) 627-2214

Email: ken.tarlow@thevmcgroup.com

**Certification Method**

☐ GR-63-Core

☒ ICC-ES AC156

☐ IEEE 344

☐ IEEE 693

☐ NEBS 3

☐ Other (Please Specify): \_\_\_\_\_

**Testing Laboratory**

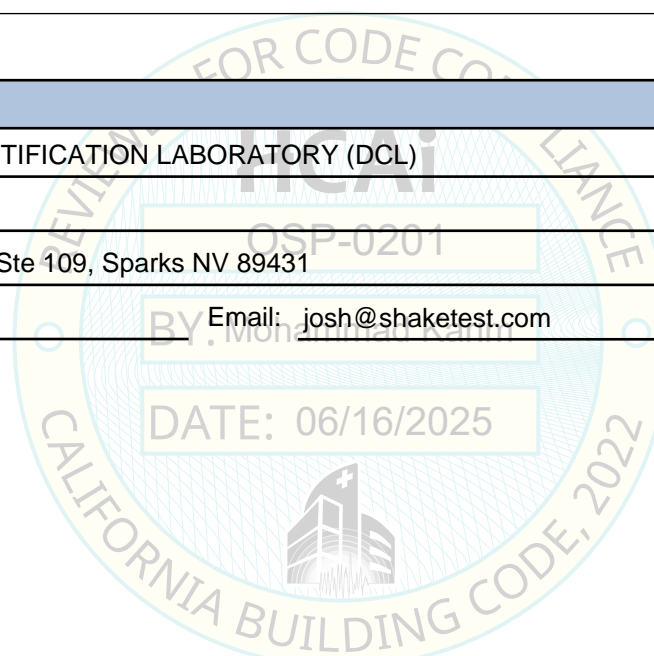
Company Name: DYNAMIC CERTIFICATION LABORATORY (DCL)

Contact Person: Josh Sailer

Mailing Address: 1315 Greg St., Ste 109, Sparks NV 89431

Telephone: (775) 358-5085

Email: josh@shaketest.com





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**Seismic Parameters**

Design Basis of Equipment or Components ( $F_p/W_p$ ) = 1.39

SDS (Design spectral response acceleration at short period, g) = 1.93

$a_p$  (Amplification factor) = 1.0

$R_p$  (Response modification factor) = 2.5

$\Omega_0$  (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 06/16/2031**

Date: 6/16/2025

Name: Mohammad Karim

Title: Supervisor, Health Facilities

Special Seismic Certification Valid Up to: SDS (g) = 1.93

$z/h$  = 1

Condition of Approval (if applicable):

# Special Seismic Certification

## Table 1 - Certified Components



**DCL Project Number:** 08111-2501

**Manufacturer:** Functional Devices

**Product Line:** PSH AC Power Supplies

**Mounting:** Rigid Wall Mounted

**Certified Seismic Levels:** Sds=1.93g with z/h=1.0

Model Number	Dimensions [in.]			Weight [lb.]	Gage	Unit
	Depth	Width	Height			
PSH40A	4.5	4.5	5.4	3.1	18	UUT 1
PSH75A	4.5	4.5	5.4	4.5		Interpolated
PSH100A	4.5	4.5	5.4	4.6		Interpolated
PSH40A-40A	4.5	4.5	8.6	5.4		Interpolated
PSH40A-75A	4.5	4.5	8.6	6.8		Interpolated
PSH40A-100A	4.5	4.5	8.6	6.9		Interpolated
PSH75A-75A	4.5	4.5	8.6	8.4		Interpolated
PSH75A-100A	4.5	4.5	8.6	8.5		Interpolated
PSH100A-100A	4.5	4.5	8.6	8.6		Interpolated
PSH300A	6.0	12.0	12.0	18.1	16	Interpolated
PSH300A-LVC <sup>1</sup>	6.0	12.0	12.0	19.6		Interpolated
PSH300AB10-LVC <sup>1</sup>	6.0	12.0	12.0	19.7		Interpolated
PSH500A	6.0	12.0	12.0	30.2		UUT 2
PSH500A-LVC <sup>1</sup>	6.0	12.0	12.0	31.5		Extrapolated <sup>2</sup>
PSH500AB10-LVC <sup>1</sup>	6.0	12.0	12.0	31.6		Extrapolated <sup>2</sup>

### Notes:

1. B10 = 10 amp main breaker switch, LVC = low voltage compartment.
2. Subcomponents in extrapolated units are bookended by UUT1 and UUT2 tests.

## Special Seismic Certification

### Table 2 - Certified Subcomponents



DCL Project Number: 08111-2501

Manufacturer: Functional Devices

Product Line: PSH AC Power Supplies

Enclosures							
Model Number	Dimensions			Gage	Material	Weight [ lb. ] <sup>2</sup>	Unit
	Depth	Width	Height				
140793/140792 <sup>1</sup>	3.8	5.1	4.3	18	Cold Rolled Carbon Steel (NEMA 1)	1.6	UUT 1
140827/140787 <sup>1</sup>	3.8	8.3	4.3			2.2	Interpolated
141432	6.0	12.0	12.0	16		9.8	Interpolated
141460	6.0	12.0	12.0			9.8	Interpolated
140946	6.0	12.0	12.0			10.7	UUT 2
141432-LVC <sup>3</sup>	6.0	12.0	12.0			11.0	Extrapolated
141460-LVC <sup>3</sup>	6.0	12.0	12.0			11.0	Extrapolated
Transformers							
Model Number	Dimensions			Material	Weight [ lb. ]	Unit	
	Depth	Width	Height				
TR40VA020	2.4	3.3	1.9	Laminated Sheet Steel Core Wound with Enameled Copper Wire	1.5	UUT 1	
560021	2.5	4.0	2.5		2.8	Interpolated	
560058	2.7	4.1	2.6		2.6	Interpolated	
TR300VA003	4.5	3.5	4.0		8.2	Interpolated	
TR500VA003	5.3	4.3	4.4		19.8	UUT 2	
Receptacles							
Model Number	Dimensions			Material	Weight [ lb. ]	Unit	
	Depth	Width	Height				
210309	1.0	1.0	0.8	Plastic	<1	UUT1, UUT2	
Switches							
Model Number	Dimensions			Material	Weight [ lb. ]	Unit	
	Depth	Width	Height				
517012	0.6	1.3	1.3	Plastic	<1	UUT1, UUT2	
Breakers							
Model Number	Dimensions			Material	Weight [ lb. ]	Unit	
	Depth	Width	Height				
517013	0.8	0.8	2.0	Plastic	<1	UUT1, UUT2	

#### Notes:

1. Enclosure models are physically identical; model numbering difference is based on marketing only.
2. All enclosures come with an associated lid. The lid is included in the weight of the enclosure.
3. LVC = low voltage compartment; these enclosures have extra dividers inside the enclosure to separate the low and high voltage compartments.

## Special Seismic Certification

### Table 3 - Tested Units



**DCL Project Number:** 08111-2501

**Manufacturer:** Functional Devices

**Product Line:** PSH AC Power Supplies

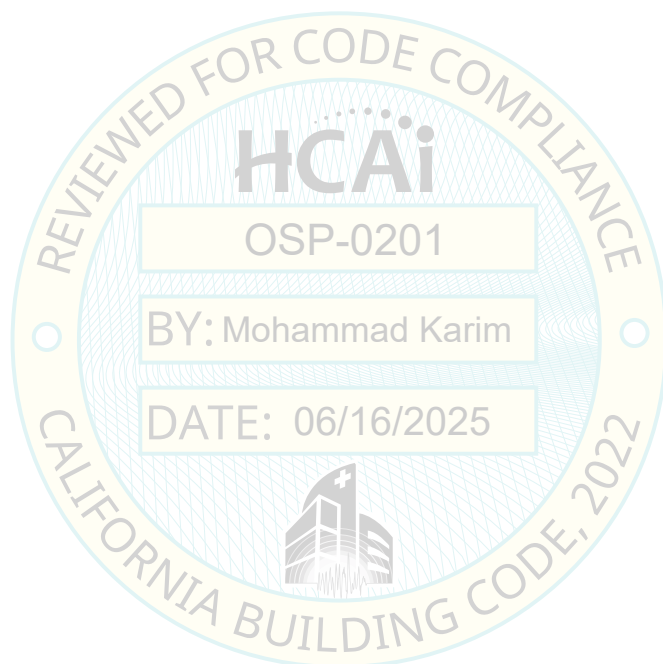
**Material:** Cold Rolled Carbon Steel (NEMA 1)

**Report Number:** 14331-1101

**Mounting:** Rigid Wall Mounted

**Certified Seismic Levels:** Sds=1.93g with z/h=1.0

Model Number	Gage	Dimensions [in.]			Weight [ lb. ]	Unit
		Depth	Width	Height		
PSH40A	18	4.5	4.5	5.4	3.1	UUT 1
PSH500A	16	6.0	12.0	12.0	30.2	UUT 2





# UNIT UNDER TEST (UUT) Summary Sheet



## UUT 1

**DCL Project Number:** 08111-2501

**DCL Repot Number:** 14331-1101

**Manufacturer:** Functional Devices

**Product Line:** PSH AC Power Supplies

**Model Number:** PSH40A

**Product Construction Summary:** 18 gage cold-rolled carbon steel, coated with smooth powder paint

**Options / Component Summary:** Enclosed single 40 VA power supply, 120 to 24 Vac

**Note:** The UUT was operational before and after shaking and was full of operating content during the tests. The structural integrity of the component attachment system and force-resisting systems was maintained.

### UUT Properties

Operating Weight (lb)	Dimensions (inches)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
3.1	4.5	4.5	5.4	N/A	N/A	N/A

### Seismic Test Parameters

Building Code	Test Criteria	Sds (g)	z/h	Ip	Aflx-H (g)	Arig-H (g)	Aflx-V (g)	Arig-V (g)
CBC 2022	ICC-ES AC156	1.93	1	1.5	3.09	2.32	1.29	0.51

**Unit Mounting Description:** UUT 1 was rigidly mounted to the wall fixture using (3) #14 sheet metal screws.



Overall view of UUT 1

## UNIT UNDER TEST (UUT) Summary Sheet



### UUT 2

**DCL Project Number:** 08111-2501

**DCL Repot Number:** 14331-1101

**Manufacturer:** Functional Devices

**Product Line:** PSH AC Power Supplies

**Model Number:** PSH500A

**Product Construction Summary:** 16 gage cold-rolled carbon steel, coated with smooth powder paint

**Options / Component Summary:** Enclosed 500VA power supply with five 100A Class 2 outputs, 480/277/240/120 Vac to 24Vac

**Note:** The UUT was operational before and after shaking and was full of operating content during the tests. The structural integrity of the component attachment system and force-resisting systems was maintained.

#### UUT Properties

Operating Weight (lb)	Dimensions (inches)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
30.2	6.0	12.0	12.0	N/A	N/A	N/A

#### Seismic Test Parameters

Building Code	Test Criteria	Sds (g)	z/h	Ip	Aflx-H (g)	Arig-H (g)	Aflx-V (g)	Arig-V (g)
CBC 2022	ICC-ES AC156	1.93	1	1.5	3.09	2.32	1.29	0.51

**Unit Mounting Description:** UUT 2 was rigidly mounted to the wall fixture using (4) #14 sheet metal screws.



Overall view of UUT 2