



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

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

OFFICE USE ONLY

APPLICATION #: OSP – 0201-10

OSHPD Special Seismic Certification Preapproval (OSP)

Type: New Renewal

Manufacturer Information

Manufacturer: Functional Devices

Manufacturer's Technical Representative: Dana Huntzinger

Mailing Address: 310 South Union Street, Russiaville, IN 46979

Telephone: (765) 883-5538 ext 423 Email: d.huntzinger@functionaldevices.com

Product Information

Product Name: PSH AC Power Supplies

Product Type: Power supply

Product Model Number: See attached

(List all unique product identification numbers and/or part numbers)

General Description: Units are 40 VA to 500VA AC power supplies with transformers capable of converting voltage to 24 Vac from up to 480 Vac

Mounting Description: Rigidly mounted to wall

Applicant Information

Applicant Company Name: The VMC Group

Contact Person: John Giuliano

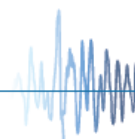
Mailing Address: 113 Main Street, Bloomingdale, NJ 07403

Telephone: (973) 838-1780 Email: john.giuliano@thevmcgroup.com

I hereby agree to reimburse the Office of Statewide Health Planning and Development review fees in accordance with the California Administrative Code, 2016.

Signature of Applicant:  Date: 1/6/17

Title: President Company Name: The VMC Group





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

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

Company Name: The VMC Group

Name: Ken Tarlow California License Number: SE2851

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

Telephone: (973) 838-1780 Email: Ken.Tarlow@thevmcgroup.com

Supports and Attachments Preapproval

- Supports and attachments are preapproved under OPM- _____
(Separate application for OSHPD Preapproval of Manufacturer's Certification (OPM) of Supports and attachments is required)
- Supports and attachments are not preapproved

Certification Method

- Testing in accordance with: ICC-ES AC156
- Other (Please Specify): _____

Testing Laboratory

Company Name: Dynamic Certification Laboratories, LLC

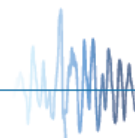
Contact Name: Kelly Laplace, Quality Manager

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

Telephone: (775) 358-5085 Email: Kelly@shaketest.com

"Access to Safe, Quality Healthcare Environments that Meet California's Diverse and Dynamic Needs"

STATE OF CALIFORNIA – HEALTH AND HUMAN SERVICES AGENCY
OSH-FD-759 (REV 12/16/15)





OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT FACILITIES DEVELOPMENT DIVISION

Seismic Parameters

Design in accordance with ASCE 7-10 Chapter 13: Yes No

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

S_{DS} (Design spectral response acceleration at short period, g) = 1.93

a_p (In-structure equipment or component amplification factor) = 1.0

R_p (Equipment or component response modification factor) = 2.5

Ω_0 (System overstrength factor) = 2.0

I_p (Importance factor) = 1.5

z/h (Height factor ratio) = 1.0

Equipment or Component Natural Frequencies (Hz) = See Attachments

Overall dimensions and weight (or range thereof) = See Attachments

Equipment or Components @ grade designed in accordance with ASCE 7-10 Chapter 15: Yes No

Design Basis of Equipment or Components (V/W) = _____

S_{DS} (Design spectral response acceleration at short period, g) = _____

S_{D1} (Design spectral response acceleration at 1 second period, g) = _____

R (Response modification coefficient) = _____

Ω_0 (System overstrength factor) = _____

C_d (Deflection amplification factor) = _____

I_p (Importance factor) = 1.5

Height to Center of Gravity above base = _____

Equipment or Component Natural Frequencies (Hz) = _____

Overall dimensions and weight (or range thereof) = _____

Tank(s) designed in accordance with ASME BPVC, 2015: Yes No

List of Attachments Supporting Special Seismic Certification

Test Report(s) Drawings Calculations Manufacturer's Catalog

Other(s) (Please Specify): OSP Product Summary

OSHPD Approval (For Office Use Only) – Approval Expires on December 31, 2022

Signature: 

Date: 2/2/2017

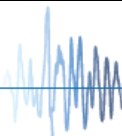
Print Name: M. R. Karim

Title: SHFR

Special Seismic Certification Valid Up to : S_{DS} (g) = 1.93

z/h = 1.0

Condition of Approval (if applicable): _____



Manufacturer: Functional Devices

Table 1 - Certified Components

Model	Dimensions (in)			Weight (lb)	Construction ¹	Sds (g), z/h=1	UUT
	Depth	Width	Height				
PSH40A	4.5	4.5	5.4	3.1	16 Gage CRS	1.93	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	18 Gage CRS	Interpolated	
PSH500A	6.0	12.0	12.0	30.2		UUT 2	

Note:

1. CRS is Cold Rolled Steel

Certified Subcomponents

Table 2 - Certified Subcomponents: Enclosures

Model	Component Mfg.	Construction Material ²	Rating	UUT
140793/140792 ¹	Functional Devices	16 Gage CRS	NEMA 1	UUT 1
140786				UUT 1
140827/140787 ¹				Interpolated
140785				Interpolated
140946		18 Gage CRS		UUT 2

Note:

1. Enclosure models are physically identical; model numbering difference is based on marketing only.
2. CRS is Cold Rolled Steel

Table 3 - Certified Subcomponents: Transformers

Model	Component Mfg.	Construction Material	Dimensions (in)			UUT
			Depth	Width	Height	
TR40VA020	Functional Devices	laminated sheet steel core wound with enameled copper wire	2.38	3.25	1.93	UUT 1
560021			2.50	4.00	2.50	Interpolated
560058			2.70	4.10	2.55	Interpolated
TR300VA003			4.50	3.50	4.00	Interpolated
TR500VA003			5.28	4.30	4.38	UUT 2

Manufacturer: Functional Devices

Table 4 - Tested Units

Model	Dimensions (in)			Weight (lb)	Construction Material ¹	UUT
	Depth	Width	Height			
PSH40A	4.5	4.5	5.4	3.1	16 Gage CRS	UUT 1
PSH500A	6.0	12.0	12.0	30.2	18 Gage CRS	UUT 2

Note:

1. CRS is Cold Rolled Steel



**UNIT UNDER TEST (UUT)
SUMMARY SHEET**

UUT-01

23258-1601

Model Line	Model Number	Manufacturer
PSH AC Power Supplies	PSH40A	Functional Devices

Product Construction Summary

16 gage cold-rolled steel, coated with smooth powder paint

Options / Subcomponent Summary

Enclosed single 40 VA power supply, 120 to 24 Vac

UUT Properties

Weight [lb]	Dimensions [in]			Lowest Nat. Freq. [Hz]		
	Length	Width	Height	F-B	S-S	V
3.1	4.5	4.5	5.4	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S _{DS} (g)	z/h	I _P	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2016	ICC-ES AC156	1.93	1	1.5	3.09	2.32	1.29	0.51

Test Mounting Details

The UUT was attached to the fixturing wall utilizing three (3) #14 sheet metal screws and the existing openings in the back of the back-box



All units were filled with contents and maintained structural integrity and functionality after shake table test



**UNIT UNDER TEST (UUT)
SUMMARY SHEET**

UUT-02

23258-1601

Model Line	Model Number	Manufacturer
PSH AC Power Supplies	PSH500A	Functional Devices

Product Construction Summary

18 gage cold-rolled steel, coated with smooth powder paint

Options / Subcomponent Summary

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

UUT Properties

Weight [lb]	Dimensions [in]			Lowest Nat. Freq. [Hz]		
	Length	Width	Height	F-B	S-S	V
30.2	6	12	12	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S _{DS} (g)	z/h	I _P	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2016	ICC-ES AC156	1.93	1.00	1.50	3.09	2.32	1.29	0.51

Test Mounting Details

The UUT was attached to the fixturing wall utilizing four #14 sheet metal screws and the existing openings in the back of the back-box



All units were filled with contents and maintained structural integrity and functionality after shake table test