

APPLICATION FOR OSHPD SPECIAL SEISMIC	OFFICE	USE ONLY
CERTIFICATION PREAPPROVAL (OSP)	APPLICATION #:	OSP – 0592 – 10
OSHPD Special Seismic Certification Preapproval (OSP)		
Type: 🛛 New 🗌 Renewal		
Manufacturer Information		
Manufacturer: Ametek Powervar		
Manufacturer's Technical Representative: Michael Creighton, Directo	r of Engineering	
Mailing Address:1450 S Lakeside Dr, Waukegan, IL 60085		
Telephone: (847) 596-7000 x7058 Email: Michae	el.creighton@ametek.cor	<u>n</u>
Product Information	20,	
Product Name:Security II UPM (Uninterruptible Power Manager)	AT PL	
Product Type: UPS (batteries)	1 E	
Product Model Number: See attachments (List all unique product identification numbers and/or part numbers) General Description: 420 to 3,000 VA units containing batteries, training batteries, train	nsformer and PCB	
Mounting Description: Rigid base mounted	70	
	₩.	
Applicant Information	CODE	
Applicant Company Name: The VMC Group		
Contact Person: John Giuliano		
Mailing Address:113 Main Street, Bloomingdale, NJ 07403		
Telephone: (973) 838-1780 Email: john.gi	uliano@thevmcgroup.co	<u>m</u>
I hereby agree to reimburse the Office of Statewide Health F accordance with the California Administrative Code, 2016.	Planning and Develo	pment review fees in
Signature of Applicant:	Date:	2/21/19
Title: President Company Name: The Vi	MC Group	
"Access to Safe, Quality Healthcare Environments that Meet California's Diverse and Dynamic Needs"	AL AMAAAA	OSHPD
STATE OF CALIFORNIA – HEALTH AND HUMAN SERVICES AGENCY OSH-FD-759 (REV 12/16/15)	JANTA TATATA	Page 1 of 3



California Licensed Structural Engineer Responsible for the Engineering and Test Report(s)
Company Name:
Name: Kenneth Tarlow California License Number: SE-2851
Mailing Address:113 Main Street, Bloomingdale, NJ 07403
Telephone: _(973) 838-1780 Email: <u>ken.tarlow@thevmcgroup.com</u>
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 $CODE$
Certification Method
Testing in accordance with: ICC-ES AC156 Other (Please Specify): OSP-0592-10
BY: Timothy J. Piland
Testing Laboratory
Company Name: DCL Labs
Contact Name: Josh Sailer, Laboratory Manager
Mailing Address: 1315 Greg Street, Suite 109, Sparks, NV 89431
Telephone: (775) 358-5085 Email: josh@shaketest.com

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



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OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT FACILITIES DEVELOPMENT DIVISION

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Seism	IC Pa	ırame	ters

Design in accordance with ASCE 7-10 Chapter 13: 🛛 Yes 🗌 No
Design Basis of Equipment or Components $(F_p/W_p) = 1.44 (z/h = 1) \& 1.13 (z/h = 0)$
S_{DS} (Design spectral response acceleration at short period, g) = 2.00 (z/h = 1) & 2.50 (z/h = 0)
a_p (In-structure equipment or component amplification factor) = <u>1.0</u>
R _p (Equipment or component response modification factor) = <u>2.5</u>
Ω_0 (System overstrength factor) = _2.0
I _P (Importance factor) = 1.5
z/h (Height factor ratio) = <u>1 & 0</u>
Equipment or Component Natural Frequencies (Hz) = <u>See attachments</u>
Overall dimensions and weight (or range thereof) = <u>See attachments</u>
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) =
C₄ (Deflection amplification factor) = BY: Timothy J. Piland
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):
OSHPD Approval (For Office Use Only) – Approval Expires on December 31, 2022
Signature: May 28, 2019
Print Name: Timothy J. Piland Title: SSE
Special Seismic Certification Valid Up to : S _{DS} (g) = <u>See Above</u> z/h = <u>See Above</u>
Condition of Approval (if applicable):
"Access to Safe, Quality Healthcare Environments that Meet California's Diverse and Dynamic Needs"
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Table 1 - Certified Components, Security II UPM

Certification Level: S_{DS} =2.00g, z/h=1.0 & S_{DS} = 2.50 g, z/h=0.0

Standard Model Number	Medical Model Number	Manufacturer	Max. Dimensions (in)			Max. Weight	Mounting	Unit
	Medical Model Number	Manufacturer	Depth	Width	Height	(lb)	Mounting	onnt
ABCE422-11	ABCE422-11MED	Ametek Powervar	18.0	5.5	7.0	31	Rigid base	UUT 1
ABCE602-11	ABCE602-11MED	Ametek Powervar	18.0	6.0	8.5	45	Rigid base	Interpolated
ABCE802-11	ABCE802-11MED	Ametek Powervar	18.0	6.0	8.5	49	Rigid base	Interpolated
ABCE1102-11	ABCE1102-11MED	Ametek Powervar	20.0	8.0	9.0	70	Rigid base	Interpolated
ABCE1442-11	ABCE1442-11MED	Ametek Powervar	E 20.0	8.0	9.0	70	Rigid base	UUT 2
ABCE2202-11	ABCE2202-11MED	Ametek Powervar	22.0	8.0	20.0	140	Rigid base	Interpolated
ABCE3002-11	ABCE3002-11MED	Ametek Powervar	22.0	8.0	20.0	140	Rigid base	UUT 3



Table 2 - Certified Subcomponents, Base Mounted

Certification Level: S _{DS} =2	2.00g, z/h=1.0 & S _{DS}	= 2.50 g, z/h=0.0
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Subcomponent (Manufacturer)	Model Number	Description	Material	Weight (lb)	Unit
	A99-00520	420VA	Lead Acid	7.75	UUT 1
Battery (Hitachi)	A99-00525	600-800VA	Lead Acid	11.1	Interpolated
	A99-00526	1100-1440VA	Lead Acid	22.35	UUT 2
	A14-00014	2200-3000 VA	Lead Acid	45	UUT 3
	A07-00108	120V 60Hz	Copper	12.4	UUT 1
	A07-00127	120V 60Hz	Copper	14.0	Interpolated
Transformer (V&F Transformer)	A07-00107	120V 60Hz C	Copper	20.0	Interpolated
	A07-00102	120V 60Hz	Copper	32.0	UUT 2
	A07-00143	120V 60Hz	Copper	55.0	UUT 3
	A26-00107 🖊 🗸	Main 420	PCB	<1.0	UUT 1
	A26-00108 🖊 🛆	Main 600	PCB	<1.0	Interpolated
PCB (Ametek Powervar)	A26-00109	Main 800	PCB	<1.0	Interpolated
	A26-00110	Main 1100	PCB	<1.0	Interpolated
	A26-00111	BY:TimotlMain 1440 iland	PCB	<1.0	UUT 2
	A26-00192	Main 2200-3000	PCB	<1.0	UUT 3



Table 3 - Tested Units

Certification Level: S_{DS} =2.00g, z/h=1.0 & S_{DS} = 2.50 g, z/h=0.0

Security II UPM Base Mounted										
Model Number	Manufacturer	Dir	mensions ((in)	Weight (lb)	Mounting	Unit			
	Manufacturer	Depth	Width	Height	weight (ib)	Mounting	Unit			
ABCE422-11	Ametek Powervar	18.0	5.5	7.0	31	Rigid base	UUT 1			
ABCE1442-11	Ametek Powervar	20.0	8.0	9.0	70	Rigid base	UUT 2			
ABCE3002-11	Ametek Powervar	22.0	8.0	20.0	140	Rigid base	UUT 3			



2.50

0.0



N/A

N/A

1.67

0.67

UNIT UNDER TEST (UUT) Summary Sheet

Manufacturer: Ametek Powervar

Product Line: Ametek Powervar Security II UPM

Model Number: ACBE422-11

Product Construction Summary: Carbon steel enclosure

Options / Component Summary: Batteries, transformer, and PCB

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

UUT Properties										
Operating Weight		imensions (in	Lowest Natural Frequency (Hz)							
(lb)			Length	Width	Height	Front-Back	Side-Side	Vertical		
31	UUT	1	18.0	5.5	7.0	>33.3	>33.3	>33.3		
			Seismic	Test Paramet	ers					
Building Code	Test Criteria	Sds (g)	z/h	lp	Aflx-H (g)	Arig-H (g)	Aflx-V (g)	Arig-V (g)		
CBC 2016	ICC-ES AC156	2.00	1.0 F		3.20	2.40	N/A	N/A		
CBC 2010	ICC-ES ACISO		40-	1.5						

Unit Mounting Description:



UUT 1 was base mounted to the DCL interface fixture with a strap assembly at the front and rear of the unit. The assembly consisted of (2) 1" wide by 0.060" thick heavyweight polypropylene cam straps (50lbs tension / 675 lb working load limit) looped through seismic brackets supplied by Ametek Powervar (Part Number A05-00928 & A05-00929). Each bracket (4 in total) was fastened to the DCL interface fixture with a 3/8" diameter, grade 5, bolt. Bolts were spaced at 14" lengthwise and 8" widthwise on center.



UNIT UNDER TEST (UUT) Summary Sheet

Manufacturer: Ametek Powervar

Product Line: Ametek Powervar Security II UPM

Model Number: ACBE1442-11

Product Construction Summary: Carbon steel enclosure

Options / Component Summary: Batteries, transformer, and PCB

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

			UU	T Properties					
Operating Weight		D	imensions (in)			Lowest Natural Frequency (Hz)			
(lb)		Length Width He				Front-Back	Side-Side	Vertical	
70	UUT	2	20.0	8.0	9.0	>33.3	>33.3	>33.3	
			Seismic	Test Paramet	ers				
Building Code	Test Criteria	Sds (g)	z/h	lp	Aflx-H (g)	Arig-H (g)	Aflx-V (g)	Arig-V (g)	
CBC 2016	ICC-ES AC156	2.00	1.0 F		3.20	2.40	N/A	N/A	
CBC 2010	ICC-L3 AC150	2.50	0.0		N/A	N/A	1.67	0.67	

Unit Mounting Description:



UUT 2 was base mounted to the DCL interface fixture with a strap assembly at the front and rear of the unit. The assembly consisted of (2) 1" wide by 0.060" thick heavyweight polypropylene cam straps (50lbs tension / 675 lb working load limit) looped through seismic brackets supplied by Ametek Powervar (Part Number A05-00928 & A05-00929). Each bracket (4 in total) was fastened to the DCL interface fixture with a 3/8" diameter, grade 5, bolt. Bolts were spaced at 16" lengthwise and 11" widthwise on center.

2.50

0.0



N/A

N/A

1.67

0.67

UNIT UNDER TEST (UUT) Summary Sheet

Manufacturer: Ametek Powervar

Product Line: Ametek Powervar Security II UPM

Model Number: ACBE3002-11

Product Construction Summary: Carbon steel enclosure

ICC-ES AC156

Options / Component Summary: Batteries, transformer, and PCB

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

UUT Properties										
Operating Weight		D	imensions (in	ensions (in)			Lowest Natural Frequency (Hz)			
(lb)			Length	Width	Height	Front-Back	Side-Side	Vertical		
140	UUT	3	22.0	8.0	20.0	>33.3	>33.3	>33.3		
	Seismic Test Parameters									
Building Code	Test Criteria	Sds (g)	z/h	lp	Aflx-H (g)	Arig-H (g)	Aflx-V (g)	Arig-V (g)		
		2.00	1.0	CODI	3.20	2.40	N/A	N/A		

Unit Mounting Description:

CBC 2016



UUT 3 was base mounted to the DCL interface fixture with a strap assembly at front and rear of the unit. The assembly consisted of (2) 1" wide by 0.060" thick heavyweight polypropylene cam straps (50lbs tension / 675 lb working load limit) looped through seismic brackets supplied by Ametek Powervar (Part Number A05-00928 & A05-00929). Each bracket (4 in total) was fastened to the DCL interface fixture with a 3/8" diameter, grade 5, bolt. Bolts were spaced at 16.5" lengthwise and 11" widthwise on center. The unit was installed with (4) seismic spacers in place of casters provided by Ametek Powervar (Part Number A05-00925) and (2) seismic support brackets provided by Ametek Powervar (Part Number A05-00926).