



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-0788

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

Type:  New  Renewal

**Manufacturer Information**

Manufacturer: Lochinvar, LLC

Manufacturer's Technical Representative: Cindy Maxwell

Mailing Address: 300 Maddox Simpson Parkway, Lebanon, TN 37090

Telephone: (615) 889-8901

Email: cmaxwell@lochinvar.com

**Product Information**

Product Name: Veritus Air Source Heat Pump Water Heater

Product Model Number(s): Veritus Air Source Heat Pump Water Heater

Product Category: Other

Product Sub-Category: Heat Pump - Water Heater

General Description: Heat Pump Water Heaters

Mounting Description: Base Mounted Rigid

Tested Seismic Enhancements: None

**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 and 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: 324 NW Hill St, Bend, OR 97703

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): \_\_\_\_\_

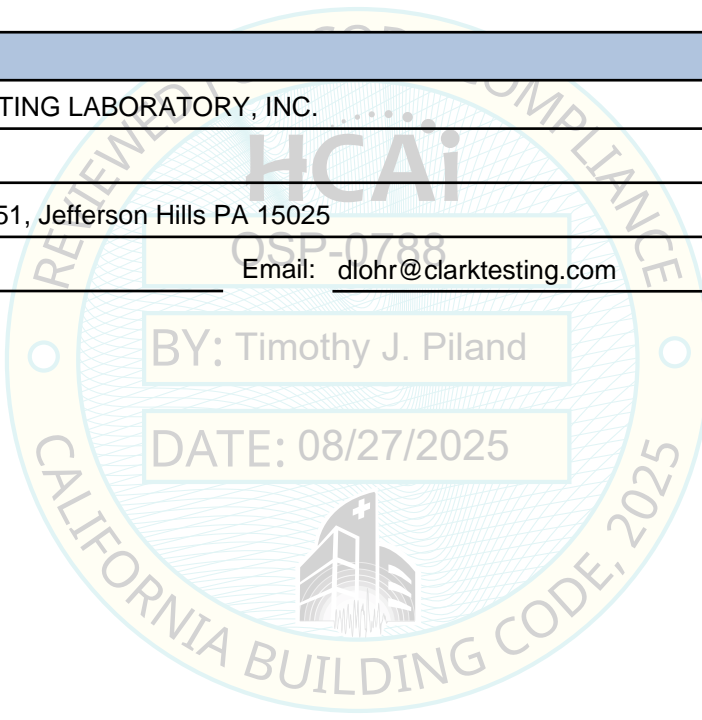
**Testing Laboratory**

Company Name: CLARK TESTING LABORATORY, INC.

Contact Person: Devon Lohr

Mailing Address: 1801 Route 51, Jefferson Hills PA 15025

Telephone: (412) 387-1001 Email: dlohr@clarktesting.com





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**Seismic Parameters**

Certified Response Spectral Acceleration Factors:( $F_p/W_p$ )

Horizontal	(A Flx-H), g=	<u>3.20</u>	(A Rig-H), g=	<u>2.15</u>
Vertical	(A Flx-V), g=	<u>1.33</u>	(A Rig-V), g=	<u>0.54</u>

SDS (Design spectral response acceleration at short period, g) = 2.0

Hf (Force amplification height factor) = 1@z/h=0, 3.5@ z/h=1

Ru (Structure ductility reduction factor) = 1@z/h=0, 1.3@ z/h=1

I<sub>p</sub> (Importance factor) = 1.5

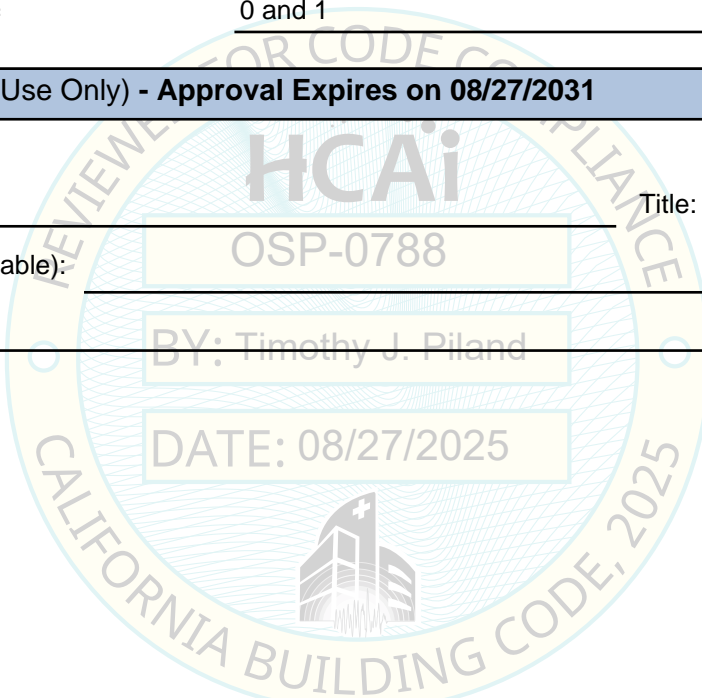
z/h (Height ratio factor) = 0 and 1

**HCAI Approval (For Office Use Only) - Approval Expires on 08/27/2031**

Date: 8/27/2025

Name: Timothy Piland Title: Senior Structural Engineer

Condition of Approval (if applicable): OSP-0788





# SPECIAL SEISMIC CERTIFICATION CERTIFIED COMPONENTS

Pre No. CC231320-01-R2

Manufacturer: Lochinvar, LLC  
 Product Type: Heat Pump Water Heaters  
 Model Line: Veritus™ Air Source Heat Pump Water Heater

Seismic Parameters			Building Codes
$S_{DS} = 2.0g$ for	$R_{\mu}=1.3, H_f=3.5$	$I_p=1.5$	CBC 2025
$S_{DS} = 2.0g$ for	$R_{\mu}=1.0, H_f=1.0$		

**TABLE 1** Mounting Configuration: Base Mounted - Rigid

**Construction Summary**      **Options Summary**

Carbon steel enclosure

AHP060 & AHP140 can be installed in series to achieve greater capacity (AHP200, AHP280, & AHP350). 208V and 480V

Model Line	Model	Max. Dimensions (in)			Wt. (lb)	Notes	UUT
		D	W	H			
Veritus Heat Pump Water Heater 208V	AHP060-208	34	30	72	722		Extrap.
	AHP140-208	34	41	72	924		Extrap.
	AHP200-208 <sup>1</sup>	34	71	72	1646	AHP060-208+AHP140-208	Extrap.
	AHP280-208 <sup>1</sup>	34	82	72	1848	AHP140-208+AHP140-208	Extrap.
	AHP350-208 <sup>1</sup>	34	112	72	2570	AHP140-208+AHP140-208+AHP060-208	Extrap.
	AHPA060-208 <sup>2</sup>	34	30	72	722		Extrap.
	AHPA140-208 <sup>2</sup>	34	41	72	924		Extrap.
	AHPA200-208 <sup>1,2</sup>	34	71	72	1646	AHPA060-208+AHPA140-208	Extrap.
	AHPA280-208 <sup>1,2</sup>	34	82	72	1848	AHPA140-208+AHPA140-208	Extrap.
	AHPA280-208 <sup>1,2</sup>	34	112	72	2570	AHPA140-208+AHPA140-208+AHPA060-208	Extrap.
	SHPA060-208 <sup>3</sup>	34	30	72	722		Extrap.
	SHPA140-208 <sup>3</sup>	34	41	72	924		Extrap.
	SHPA200-208 <sup>1,3</sup>	34	71	72	1646	SHPA060-208+SHPA140-208	Extrap.
	SHPA280-208 <sup>1,3</sup>	34	82	72	1848	SHPA140-208+SHPA140-208	Extrap.
	SHPA350-208 <sup>1,3</sup>	34	112	72	2570	SHPA140-208+SHPA140-208+SHPA060-208	Extrap.
Veritus Heat Pump Water Heater 480V	AHP060-480	34	30	72	722		1
	AHP140-480	34	41	72	924		2
	AHP200-480 <sup>1</sup>	34	71	72	1646	AHP060-480+AHP140-480	Extrap.
	AHP280-480 <sup>1</sup>	34	82	72	1848	AHP140-480+AHP140-480	Extrap.
	AHP350-480 <sup>1</sup>	34	112	72	2570	AHP140-480+AHP140-480+AHP060-480	Extrap.

Note:  
<sup>1</sup> Capacity based on a combination of tested units used in series. Units are not ganged (bolted together) but connected in series by piping/wiring.  
<sup>2</sup> Alternate branding, models identical to tested units. Lochinvar AHP#### is identical to AO Smith AHPA####.  
<sup>3</sup> Alternate branding, models identical to tested units. Lochinvar AHP#### is identical to State Industries SHPA####.



# SPECIAL SEISMIC CERTIFICATION CERTIFIED COMPONENTS

Pre No. CC231320-01-R2

Manufacturer: Lochinvar, LLC  
 Product Type: Heat Pump Water Heaters  
 Model Line: Veritus™ Air Source Heat Pump Water Heater

Seismic Parameters			Building Codes	
$S_{DS} = 2.0g$ for	$R_{\mu}=1.3, H_f=3.5$	$I_p=1.5$	<b>CBC 2025</b>	
$S_{DS} = 2.0g$ for	$R_{\mu}=1.0, H_f=1.0$			

**TABLE 1** Mounting Configuration: Base Mounted - Rigid

### Construction Summary

Carbon steel enclosure

### Options Summary

AHP060 & AHP140 can be installed in series to achieve greater capacity (AHP200, AHP280, & AHP350). 208V and 480V

Model Line	Model	Max. Dimensions (in)			Wt. (lb)	Notes	UUT
		D	W	H			
Veritus Heat Pump Water Heater 480V	AHPA060-480 <sup>2</sup>	34	30	72	722		Extrap.
	AHPA140-480 <sup>2</sup>	34	41	72	924		Extrap.
	AHPA200-480 <sup>1,2</sup>	34	71	72	1646	AHPA060-480+AHPA140-480	Extrap.
	AHPA280-480 <sup>1,2</sup>	34	82	72	1848	AHPA140-480+AHPA140-480	Extrap.
	AHPA350-480 <sup>1,2</sup>	34	112	72	2570	AHPA140-480+AHPA140-480+AHPA060-480	Extrap.
	SHPA060-480 <sup>3</sup>	34	30	72	722		Extrap.
	SHPA140-480 <sup>3</sup>	34	41	72	924		Extrap.
	SHPA200-480 <sup>1,3</sup>	34	71	72	1646	SHPA060-480+SHPA140-480	Extrap.
	SHPA280-480 <sup>1,3</sup>	34	82	72	1848	SHPA140-480+SHPA140-480	Extrap.
	SHPA350-480 <sup>1,3</sup>	34	112	72	2570	SHPA140-480+SHPA140-480+SHPA060-480	Extrap.

Note:  
<sup>1</sup> Capacity based on a combination of tested units used in series. Units are not ganged (bolted together) but connected in series by piping/wiring.  
<sup>2</sup> Alternate branding, models identical to tested units. Lochinvar AHP### is identical to AO Smith AHPA###.  
<sup>3</sup> Alternate branding, models identical to tested units. Lochinvar AHP### is identical to State Industries SHPA###.





# SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENTS

Pre No. CC231320-01-R2

Manufacturer: Lochinvar, LLC  
 Product Type: Heat Pump Water Heaters  
 Model Line: Veritus™ Air Source Heat Pump Water Heater

Seismic Parameters	
$S_{DS} = 2.0g$ for	$R_{\mu} = 1.3, H_f = 3.5$
$S_{DS} = 2.0g$ for	$R_{\mu} = 1.0, H_f = 1.0$

Building Codes  
**CBC 2025**  
 $I_p = 1.5$

## TABLE 3 Evaporator

Component (Manufacturer)	Model	Description	Notes	UUT
Evaporator Fan (Multi Wing)	C0710-001-COM-10-V2	56 lbs.		1,2
Evaporator Fan Motor (Regal)	E56Y22TRA2210	208V, 23.8 lbs		Extrap.
	E56Y42TRA2210	480V, 23.8 lbs		1,2
Evaporator Coil (Changfa)	100360811	Copper Tubbing, Aluminum Fins, 37.7 lbs.		1
	100346636	Copper Tubbing, Aluminum Fins, 42.7 lbs.		1
	100360815	Copper Tubbing, Aluminum Fins, 49.4 lbs.		2
	100360816	Copper Tubbing, Aluminum Fins, 66.4 lbs.		2









## UUT 1

Test Report# JID 23-00579-R1

**Manufacturer:** Lochinvar, LLC  
**Model Line:** Veritus™ Air Source Heat Pump Water Heater  
**Model Number:** AHP060-480  
**Serial Number:** TX000002165

Highest Passed Test Level							
$S_{DS}$	$R_{\mu}$	$H_f$	$I_p$	$A_{flx-h}$	$A_{rig-h}$	$A_{flx-v}$	$A_{rig-v}$
2.0	1.3	3.5	1.5	3.20	2.15	1.34	0.54
2.0	1.0	1.0					

Dimensions/Weights			
Depth (in)	Width (in)	Height (in)	Weight (lbs.)
34	30	72	722

Lowest Natural Frequency (Hz)		
Front-Back	Side-Side	Vertical
16.6	4.5	21.5

Building Codes
CBC 2025

Test Criteria
ICC-ES AC156

Construction/Option Summary
Carbon steel, 480V

### UUT Mounting Details:



UUT 1 was mounted to seismic table using a total of four (4) 3/8"-16 SAE grade 5 hex bolts with washers and lock washers and torqued to 25ft-lb. One bolt was used per angle bracket. Bracket details on next page.

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 Number	Wt. (lbs.)
Scroll Compressor	ZB45KCE-TFD-250	87
Evaporator Fan	C0710-001-COM-10-V2	56
Evaporator Fan Motor	E56Y42TRA2210	23.8
Evaporator Coil	100360811	42.7
Evaporator Coil	100346636	37.7
Condenser	BPDW 415-34	49.4
Pump	UPMXL 25-125 180 SS	6.7
Reversing Valve	STF-07U12G	2.9

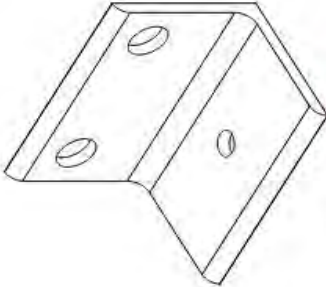
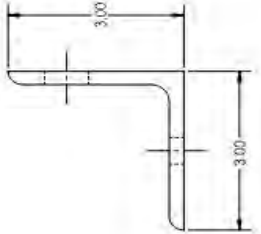
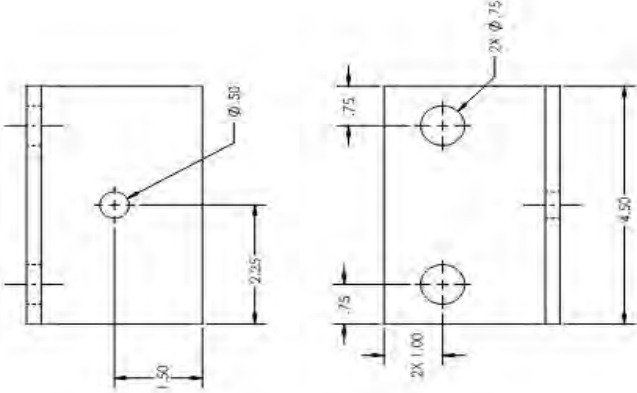
## UUT 1

Test Report# JID 23-00579-R1

### Mounting Bracket Details

Four (4) brackets used and attached to the unit with two (2) 5/8-11 SAE grade 5 bolts with washers and lock washers. Each bolt torqued to 120ft-lbs.

REV DESCRIPTION	PROCESS NO	CHANGE NO	DATE	REV BY
A INITIAL RELEASE	300007888	50004029	8/28/2023	M. GELFINK

**AC Smith**  
A.O. Smith Corporation

ANGIE ANCHORAGE AHP  
10037226

ANGIE 7883 / 1007313A-88  
HYDRAJET  
ANGIE 811-0788AHP



## UUT 2

Test Report# JID 23-00579-R1

**Manufacturer:** Lochinvar, LLC  
**Model Line:** Veritus™ Air Source Heat Pump Water Heater  
**Model Number:** AHP140-480  
**Serial Number:** TX000002172

Highest Passed Test Level							
$S_{DS}$	$R_{\mu}$	$H_f$	$I_p$	$A_{flx-h}$	$A_{rig-h}$	$A_{flx-v}$	$A_{rig-v}$
2.0	1.3	3.5	1.5	3.20	2.15	1.34	0.54
2.0	1.0	1.0					

Dimensions/Weights			
Depth (in)	Width (in)	Height (in)	Weight (lbs.)
34	41	72	924

Lowest Natural Frequency (Hz)		
Front-Back	Side-Side	Vertical
17.4	8.2	>33.3

Building Codes
CBC 2025

Test Criteria
ICC-ES AC156

Construction/Option Summary
Carbon steel, 480V

### UUT Mounting Details:



UUT 2 was mounted to seismic table using a total of four (4) 3/8"-16 SAE grade 5 hex bolts with washers and lock washers and torqued to 25ft-lb. One bolt was used per angle.

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 Number	Wt. (lbs.)
Scroll Compressor	ZB95KCE-TFD-25=60	143
Evaporator Fan	C0710-001-COM-10-V2	56
Evaporator Fan Motor	E56Y42TRA2210	23.8
Evaporator Coil	100360815	66.4
Evaporator Coil	100360816	49.4
Condenser	BPDW 415-64	72.5
Pump	UPMXL 25-125 180 SS	6.7
Reversing Valve	STF-2OU11G	3.3
Control Panel	100370141	18

## UUT 2

Test Report# JID 23-00579-R1

### Mounting Bracket Details

Four (4) brackets used and attached to the unit with two (2) 5/8-11 SAE grade 5 bolts with washers and lock washers. Each bolt torqued to 120ft-lbs.

REV DESCRIPTION	PROCESS NO	CHANGE NO	DATE	REV BY
A INITIAL RELEASE	300007888	50004029	8/28/2023	M. GUBBIN

