



**DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION  
FACILITIES DEVELOPMENT DIVISION**

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

OFFICE USE ONLY

**APPLICATION #: OSP-0806**

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

Type:  New  Renewal

**Manufacturer Information**

Manufacturer: Johnson Controls

Manufacturer's Technical Representative: Jerry Laumann

Mailing Address: 5000 Renaissance Drive, New Freedom, PA 17349

Telephone: (443) 789-0458

Email: gerald.w.laumann@jci.com

**Product Information**

Product Name: Chillers

Product Type: Chillers - Air Cooled

Product Model Number: York YMAE and Quantech QTH1 with Single Point Power Panels

General Description: Air-to-Water Inverter Scroll Heat Pumps, Piland

Mounting Description: See Certified Product Tables, See Certified Product Tables

Tested Seismic Enhancements: None

**Applicant Information**

Applicant Company Name: Pre Compliance

Contact Person: Andrew Coughlin

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

Telephone: (415) 635-8461

Email: Andy@go-pre.com

Title: Principal Engineer

*"A healthier California where all receive equitable, affordable, and quality health care"*

**STATE OF CALIFORNIA – HEALTH AND HUMAN SERVICES AGENCY**





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

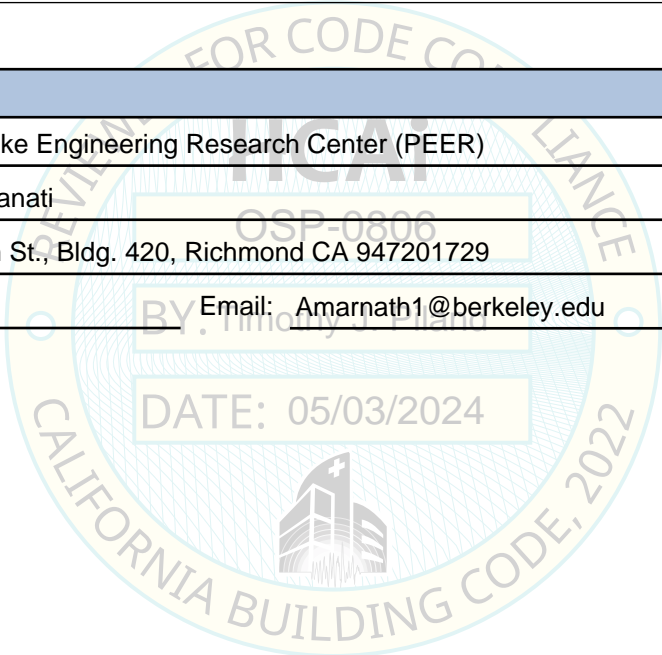
**Testing Laboratory**

Company Name: Pacific Earthquake Engineering Research Center (PEER)

Contact Person: Amarnath Kasalanati

Mailing Address: 1301 South 46th St., Bldg. 420, Richmond CA 947201729

Telephone: (510) 642-3437 Email: Amarnath1@berkeley.edu





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**Seismic Parameters**

Design Basis of Equipment or Components ( $F_p/W_p$ ) = 4.50 at z/h=1.0 (Isolated) and 1.70 at z/h = 0.0 (Isolated)

SDS (Design spectral response acceleration at short period, g) = 2.0 at z/h=1.0, 2.26 at z/h =0

$a_p$  (Amplification factor) = 2.5

$R_p$  (Response modification factor) = 2.0

$\Omega_0$  (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

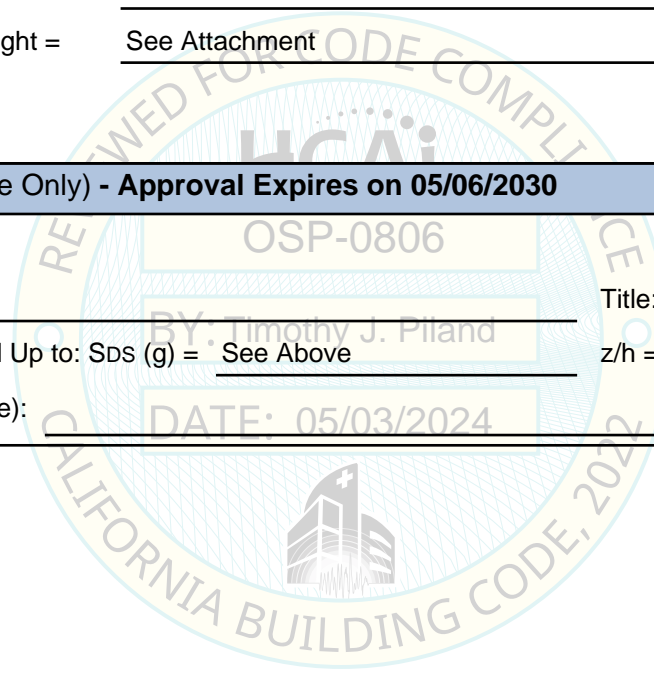
**HCAI Approval (For Office Use Only) - Approval Expires on 05/06/2030**

Date: 5/3/2024

Name: Timothy Piland Title: Senior Structural Engineer

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

Condition of Approval (if applicable): DATE: 05/03/2024















## UUT 1

Test Report# TR231362-01-R1

<b>Manufacturer:</b> Johnson Controls	<b>Highest Passed Test Level</b>						
<b>Model Line:</b> York YMAE Air-Cooled Modular Chiller	<b>S<sub>DS</sub></b>	<b>z/h</b>	<b>I<sub>p</sub></b>	<b>A<sub>flx-h</sub></b>	<b>A<sub>rig-h</sub></b>	<b>A<sub>flx-v</sub></b>	<b>A<sub>rig-v</sub></b>
<b>Model Number:</b> YMAE0035PJS	2.00	1	1.5	3.20	2.40	1.51	0.60
<b>Serial Number:</b> 50532M20348606	2.26	0					

Dimensions/Weights			
<b>Depth (in)</b>	<b>Width (in)</b>	<b>Height (in)</b>	<b>Weight (lbs.)</b>
88.2	47.2	99	2,596

Lowest Natural Frequency (Hz)		
<b>Front-Back</b>	<b>Side-Side</b>	<b>Vertical</b>
4.0	2.4	8.6

Building Codes	Test Criteria	Construction/Option Summary
CBC 2022	ICC-ES AC156	Carbon Steel

### UUT Mounting



#### UUT Mounting Details:

UUT base mounted-isolated on four (4) Vibrasystems SRMT-1-407 spring isolators with 5/8" Grade 8 top bolt. Each isolator mounted to shake table with two (2) 1/2" Grade 8 bolts and washers.

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

## UUT 2

Test Report# TR231362-01-R1

<p><b>Manufacturer:</b> Johnson Controls</p> <p><b>Model Line:</b> York YMAE Air-Cooled Modular Chiller</p> <p><b>Model Number:</b> YMAE0035PJP</p> <p><b>Serial Number:</b> 50532M20348606</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="8">Highest Passed Test Level</th> </tr> <tr> <th>S<sub>DS</sub></th> <th>z/h</th> <th>I<sub>p</sub></th> <th>A<sub>flx-h</sub></th> <th>A<sub>rig-h</sub></th> <th>A<sub>flx-v</sub></th> <th colspan="2">A<sub>rig-v</sub></th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">2.00</td> <td style="text-align: center;">1</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td style="text-align: center;">2.47</td> <td style="text-align: center;">0</td> <td style="text-align: center;">1.5</td> <td style="text-align: center;">3.20</td> <td style="text-align: center;">2.40</td> <td style="text-align: center;">1.65</td> <td colspan="2" style="text-align: center;">0.66</td> </tr> </tbody> </table>	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>		2.00	1							2.47	0	1.5	3.20	2.40	1.65	0.66	
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>																											
2.00	1																																
2.47	0	1.5	3.20	2.40	1.65	0.66																											

Dimensions/Weights			
Depth (in)	Width (in)	Height (in)	Weight (lbs.)
88.2	47.2	99	2,475

Lowest Natural Frequency (Hz)		
Front-Back	Side-Side	Vertical
7.9	5.5	13.0

Building Codes	Test Criteria	Construction/Option Summary
CBC 2022	ICC-ES AC156	Carbon Steel

### UUT Mounting Details:



### UUT Mounting Details:

Unit mounted rigidly to the shake table plate with four (4) 1/2" Grade 8 hex head bolts and flat washers.

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

## UUT 3a

Test Report# TR231362-01-R1

<b>Manufacturer:</b> Johnson Controls	<b>Highest Passed Test Level</b>						
<b>Model Line:</b> York YMAE Air-Cooled Modular Chiller	<b>S<sub>DS</sub></b>	<b>z/h</b>	<b>I<sub>p</sub></b>	<b>A<sub>flx-h</sub></b>	<b>A<sub>rig-h</sub></b>	<b>A<sub>flx-v</sub></b>	<b>A<sub>rig-v</sub></b>
<b>Model Number:</b> ATC-C1S-000	2.00	1	1.5	3.20	2.40	1.51	0.60
<b>Serial Number:</b> 495401-0001-001	2.26	0					

Dimensions/Weights			
Depth (in)	Width (in)	Height (in)	Weight (lbs.)
12	24	30	103

Lowest Natural Frequency (Hz)		
Front-Back	Side-Side	Vertical
N/A	N/A	N/A

Building Codes	Test Criteria	Construction/Option Summary
CBC 2022	ICC-ES AC156	Carbon Steel Enclosure (NEMA 4)

### UUT Mounting



### UUT Mounting Details:

UUT mounted to wall fixture with (4) 5/16"-18 Grade 8 bolts and washers.

Wall fixture base mounted-isolated on four (4) Mason SLFADA200-2-B-900 spring isolators with 5/8" Grade 8 top bolts. Each isolator mounted to shake table steel plate with four (4) 5/8" Grade 8 bolts and washers.

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

## UUT 3b

Test Report# TR231362-01-R1

**Manufacturer:** Johnson Controls  
**Model Line:** York YMAE Air-Cooled Modular Chiller  
**Model Number:** ATC-C1S-000  
**Serial Number:** 495401-0001-001

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>	
2.00	1	1.5	3.20	2.40	1.65	0.66	
2.47	0						

Dimensions/Weights			
Depth (in)	Width (in)	Height (in)	Weight (lbs.)
12	24	30	103

Lowest Natural Frequency (Hz)		
Front-Back	Side-Side	Vertical
N/A	N/A	N/A

Building Codes	Test Criteria	Construction/Option Summary
CBC 2022	ICC-ES AC156	Carbon Steel Enclosure (NEMA 4)

### UUT Mounting:



### UUT Mounting Details:

Wall fixture base mounted - rigid to shake table plate. Unit was mounted to wall fixture with four (4) 5/16"-18 Grade 8 bolts and washers.

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

## UUT 4a

Test Report# TR231362-01-R1

<b>Manufacturer:</b> Johnson Controls	<b>Highest Passed Test Level</b>						
<b>Model Line:</b> York YMAE Air-Cooled Modular Chiller	<b>S<sub>DS</sub></b>	<b>z/h</b>	<b>I<sub>p</sub></b>	<b>A<sub>flx-h</sub></b>	<b>A<sub>rig-h</sub></b>	<b>A<sub>flx-v</sub></b>	<b>A<sub>rig-v</sub></b>
<b>Model Number:</b> ATC-E1S-000	2.00	1	1.5	3.20	2.40	1.51	0.60
<b>Serial Number:</b> 495402-0001-001	2.26	0					

Dimensions/Weights			
Depth (in)	Width (in)	Height (in)	Weight (lbs.)
12	24	30	113

Lowest Natural Frequency (Hz)		
Front-Back	Side-Side	Vertical
N/A	N/A	N/A

Building Codes	Test Criteria	Construction/Option Summary
CBC 2022	ICC-ES AC156	Carbon Steel Enclosure (NEMA 4)

### UUT Mounting



### UUT Mounting Details:

UUT mounted to wall fixture with (4) 5/16"-18 Grade 8 bolts and washers.

Wall fixture base mounted-isolated on four (4) Mason SLFADA200-2-B-900 spring isolators with 5/8" Grade 8 top bolts. Each isolator mounted to shake table steel plate with four (4) 5/8" Grade 8 bolts and washers.

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

## UUT 4b

Test Report# TR231362-01-R1

**Manufacturer:** Johnson Controls  
**Model Line:** York YMAE Air-Cooled Modular Chiller  
**Model Number:** ATC-E1S-000  
**Serial Number:** 495402-0001-001

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>	
2.00	1	1.5	3.20	2.40	1.65	0.66	
2.47	0						

Dimensions/Weights			
Depth (in)	Width (in)	Height (in)	Weight (lbs.)
12	24	30	113

Lowest Natural Frequency (Hz)		
Front-Back	Side-Side	Vertical
N/A	N/A	N/A

**Building Codes**  
CBC 2022

**Test Criteria**  
ICC-ES AC156

**Construction/Option Summary**  
Carbon Steel Enclosure (NEMA 4)

### UUT Mounting Details:



### UUT Mounting Details:

Wall fixture base mounted - rigid to shake table plate. Unit was mounted to wall fixture with four (4) 5/16"-18 Grade 8 bolts and washers.

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