



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

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

OFFICE USE ONLY

APPLICATION #: OSP-0180

HCAI Special Seismic Certification Preapproval (OSP)

Type: New Renewal

Manufacturer Information

Manufacturer: AAON, Inc.

Manufacturer's Technical Representative: David Salego

Mailing Address: 2425 S. Yukon Ave, Tulsa, OK 74107

Telephone: (918) 382-6419

Email: dsalego@aaon.com

Product Information

Product Name: Air Conditioning Units

Product Type: Air Conditioning Units - Packaged

Product Model Number: RQ, RN-A, RN-B, RN-C

General Description: Foam injected galvanized steel panel cabinets w/ internal & external components as outline in the Product Matrices

Mounting Description: Base mounted rigid, on or off curb. Curb height limitations: < 24" high solid bottom curb, < 33" high horizontal discharge curb; < 37" high filter curb

Tested Seismic Enhancements: None

Applicant Information

Applicant Company Name: TRU Compliance

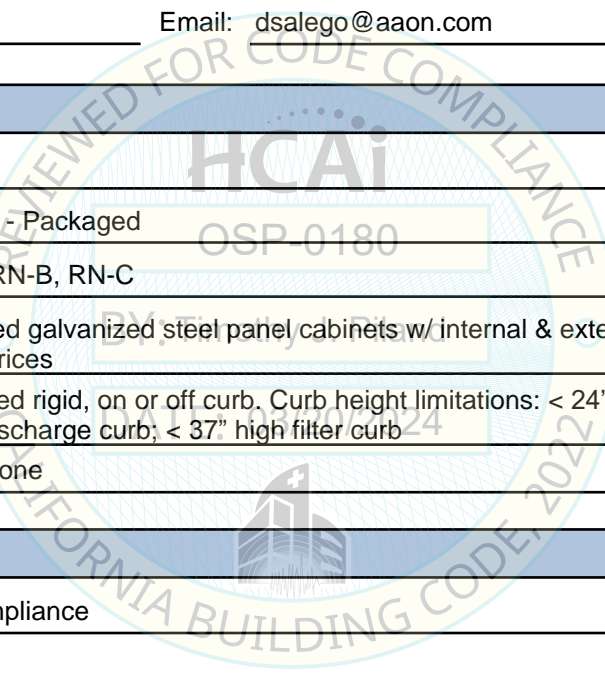
Contact Person: Daniel Zentner

Mailing Address: 233 SW Wilson Ave, Suite 101, Bend, OR 97702

Telephone: (541) 292-5839

Email: dzentner@structint.com

Title: Program Manager





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

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

Company Name: STRUCTURAL INTEGRITY ASSOCIATES, INC.
Name: LACHEZAR HANDZHIYSKI California License Number: S6515
Mailing Address: 5215 Hellyer Avenue, Suite 210, San Jose, CA 95138
Telephone: (669) 437-0200 Email: Lhandzhiyski@StructInt.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

Company Name: UNIVERSITY OF CALIFORNIA, BERKELEY (PEER)
Contact Person: Clement B. Barthes
Mailing Address: 325 Davis Hall, Berkeley CA 947201729
Telephone: (510) 642-3437 Email: peer_center@berkeley.edu





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

Seismic Parameters

Design Basis of Equipment or Components (F_p/W_p) = 1.87

SDS (Design spectral response acceleration at short period, g) = 2.50

a_p (Amplification factor) = 2.5

R_p (Response modification factor) = 6.0

Ω_0 (System overstrength factor) = 2.0

I_p (Importance factor) = 1.5

z/h (Height ratio factor) = 1

Natural frequencies (Hz) = See Attachment

Overall dimensions and weight = See Attachment

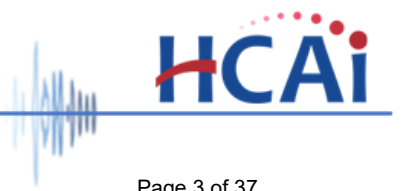
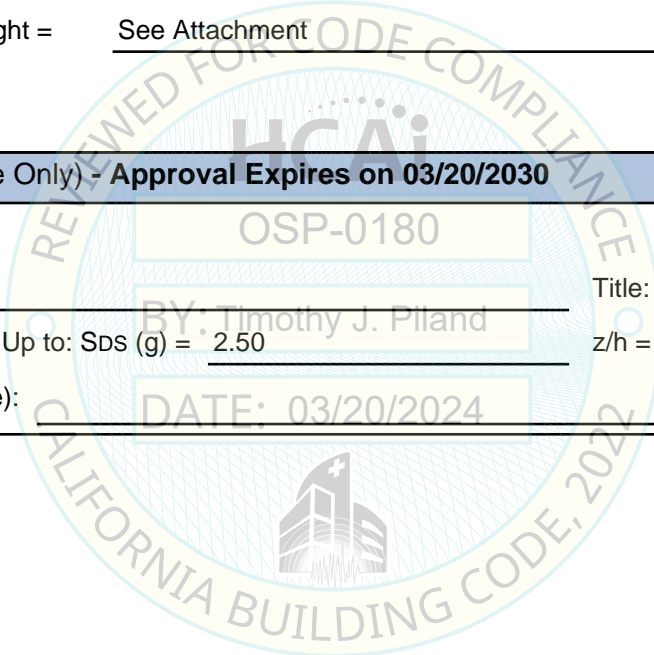
HCAI Approval (For Office Use Only) - Approval Expires on 03/20/2030

Date: 3/20/2024

Name: Timothy Piland Title: Senior Structural Engineer

Special Seismic Certification Valid Up to: SDS (g) = 2.50 z/h = 1

Condition of Approval (if applicable): DATE: 03/20/2024



SPECIAL SEISMIC CERTIFICATION CERTIFIED COMPONENT MATRIX

1901025-CR-001-R1



| | |
|--|----------------|
| Manufacturer: AAON | TABLE 1 |
| Model Line: RQ, RN Series Rooftop Units | |

Certified Product Construction Summary:
2" foam injected galvanized steel panel construction.

Certified Options Summary:
Vertical or horizontal discharge and return. Interior corrosion protection. Single or three phase 208V, 230V or 460V.
AAON supplied curbs: Up to 24" solid bottom curb, Up to 37" final filter curb, Up to 33" horizontal discharge curb

Mounting Configuration:
Base mounted - rigid to curb using standard manufacturer provided brackets
Note: Installed mounting must be of similar configuration and equivalent strength and stiffness to those tested.

Building Code: CBC 2022 **Seismic Certification Limits:** $S_{DS} = 2.5g$ $z/h = 1.0$ $I_p = 1.5$
 $S_{DS} = 2.5g$ $z/h = 0.0$

| Model Line | Model | Dimensions (in) | | | Weight (lbs.) ³ | Notes | UUT |
|------------------------------|---------------------|----------------------|-------|--------|----------------------------|----------------------------------|---------|
| | | Depth ^{1,2} | Width | Height | | | |
| RQ | RQ-002-3-V-GA12-000 | 82.0 | 44.0 | 43.0 | 785 | UUT7: 1,250 lbs. w/ frame | 7 |
| | RQ-002-3-V-G79C-211 | 82.0 | 44.0 | 43.0 | 1,076 | UUT1: 1,720 lbs. w/ curb & frame | 1 |
| | RQ-003 | 82.0 | 44.0 | 43.0 | 1,736 | | Interp. |
| | RQ-004 | 82.0 | 44.0 | 43.0 | 1,736 | | Interp. |
| | RQ-005 | 82.0 | 44.0 | 43.0 | 1,736 | | Interp. |
| | RQ-006-3-V-0W9N-FJM | 82.0 | 44.0 | 43.0 | 960 | UUT3: 1,360 lbs. w/ frame | 3 |
| | RQ-006-2-V-E61E-14A | 82.0 | 44.0 | 43.0 | 1,736 | UUT5: 2,300 lbs. w/ curb & frame | 5 |
| RN ⁴ Cabinet A | RN-006 | 82.0 | 79.0 | 44.0 | 1,422 | | Interp. |
| | RN-007 | 82.0 | 79.0 | 44.0 | 1,422 | | Interp. |
| | RN-008 | 82.0 | 79.0 | 44.0 | 1,422 | | Interp. |
| | RN-010-3-0-E79E-000 | 82.0 | 79.0 | 44.0 | 1,422 | UUT6: 2,125 lbs. w/ curb & frame | 6 |
| RN ⁴ Cabinet B | RN-009 | 88.0 | 96.0 | 50.0 | 3,000 | | Interp. |
| | RN-011 | 88.0 | 96.0 | 50.0 | 3,000 | | Interp. |
| | RN-013 | 88.0 | 96.0 | 50.0 | 3,000 | | Interp. |
| | RN-015 | 88.0 | 96.0 | 50.0 | 3,000 | | Interp. |
| RN ⁴ Cabinet C | RN-016 | 110.0 | 101.0 | 59.0 | 4,571 | | Interp. |
| | RN-018 | 110.0 | 101.0 | 59.0 | 4,571 | | Interp. |
| | RN-020 | 110.0 | 101.0 | 59.0 | 4,571 | | Interp. |
| | RN-025 | 110.0 | 101.0 | 59.0 | 4,571 | | Interp. |
| | RN-030-3-0-E61S-7C2 | 110.0 | 101.0 | 59.0 | 3,953 | UUT2: 4,815 lbs. w/ curb & frame | 2 |

Notes:
1. RQ standard depth is 82". UUT1, UUT5, and UUT7 tested with options that extend overall dimension to 120"
2. RN Cabinet A standard depth is 82". UUT6 tested with options that extend overall dimension to 120"
3. Weight excludes curb / frame
4. Exterior Cabinet Options: A = Base Insulation (6-10 Tons), B = Burglar Bars (9-15 Ton), C = Condenser Coil Guards (16-30 Tons), D = Options A + B (26-70 Tons)

SPECIAL SEISMIC CERTIFICATION CERTIFIED COMPONENT MATRIX

1901025-CR-001-R1



| | |
|--|----------------|
| Manufacturer: AAON | TABLE 1 |
| Model Line: RQ, RN Series Rooftop Units | |

Certified Product Construction Summary:
2" foam injected galvanized steel panel construction.

Certified Options Summary:
Vertical or horizontal discharge and return. Interior corrosion protection. Single or three phase 208V, 230V or 460V.
AAON supplied curbs: Up to 24" solid bottom curb, Up to 37" final filter curb, Up to 33" horizontal discharge curb

Mounting Configuration:
Base mounted - rigid to curb using standard manufacturer provided brackets
Note: Installed mounting must be of similar configuration and equivalent strength and stiffness to those tested.

Building Code: CBC 2022 **Seismic Certification Limits:** $S_{DS} = 2.5g$ $z/h = 1.0$ $I_p = 1.5$
 $S_{DS} = 2.5g$ $z/h = 0.0$

| Model Line | Model | Dimensions (in) | | | Weight (lbs.) ³ | Notes | UUT |
|------------------------------|---------------------|----------------------|-------|--------|----------------------------|-----------------------------------|---------|
| | | Depth ^{1,2} | Width | Height | | | |
| RN ⁴ Cabinet C | RN-030-3-0-0W9M-DJM | 110.0 | 101.0 | 59.0 | 2,236 | UUT4: 3,062 lbs. w/ curb & frame | 4 |
| | RN-030-2-0-EB19-19A | 110.0 | 101.0 | 59.0 | 3,030 | UUT8: 3,530 lbs. w/ frame | 8 |
| | RN-030-3-0-E61T-7C2 | 110.0 | 101.0 | 59.0 | 4,571 | UUT11: 4,571 lbs. w/ curb & frame | 11 |
| RN ⁴ Cabinet D | RN-026 | 203.50 | 99.75 | 63.75 | 9,291 | | Interp. |
| | RN-031 | 203.50 | 99.75 | 63.75 | 9,291 | | Interp. |
| | RN-040 | 203.50 | 99.75 | 63.75 | 9,291 | | Interp. |
| | RN-050 | 203.50 | 99.75 | 63.75 | 9,291 | | Interp. |
| | RN-060 | 203.50 | 99.75 | 63.75 | 9,291 | | Interp. |
| | RN-070-3-0-0W9M-DJM | 203.50 | 99.75 | 63.75 | 7,626 | UUT9: 9,291 lbs. | 9 |
| | RN-070-3-0-EQ19-7C2 | 203.50 | 99.75 | 63.75 | 7,868 | UUT10: 9,533 lbs. w/ curb | 10 |
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Notes:
1. RQ standard depth is 82". UUT1, UUT5, and UUT7 tested with options that extend overall dimension to 120"
2. RN Cabinet A standard depth is 82". UUT6 tested with options that extend overall dimension to 120"
3. Weight excludes curb / frame
4. Exterior Cabinet Options: A = Base Insulation (6-10 Tons), B = Burglar Bars (9-15 Ton), C = Condenser Coil Guards (16-30 Tons), D = Options A + B (26-70 Tons)

SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENT MATRIX

1901025-CR-001-R1



| Manufacturer: AAON | | Table Description: Fans | | | | | TABLE 2 | |
|---|-------|-------------------------|-------|---------|------------------|----------------------------------|--|-------------|
| Model Line: RQ, RN Series Rooftop Units | | Building Code: CBC 2022 | | | | | Seismic Certification Limits: $S_{DS} = 2.5g$ $z/h = 1.0$ $S_{DS} = 2.5g$ $z/h = 0.0$ $I_p = 1.5$ | |
| Model Line (Manufacturer) | Model | Dimension (in) | | | Weight (lbs.) | Material | Notes | UUT |
| | | Diameter | Depth | #Blades | | | | |
| Plenum Fan Belt Drive (ACME) | 10" | 11.0 | 8.0 | 12 | 4.00 | Aluminum | | Extrap |
| | 12" | 12.0 | 12.2 | 12 | 4.00 | Aluminum | | Extrap |
| | 13.5" | 13.5 | 3.0 | 12 | 4.25 | Aluminum | | Extrap |
| | 15" | 15.0 | 5.2 | 12 | 4.75 | Aluminum | | 5 |
| | 17" | 17.0 | 3.8 | 12 | 6.00 | Aluminum | | Interp |
| | 18.5" | 18.5 | 6.3 | 14 | 7.50 | Aluminum | | Interp |
| | 22" | 22.0 | 4.9 | 12 | 10.25 | Aluminum | | 11 |
| Plenum Fan Direct Drive (ACME) | 10" | 11.0 | 8.0 | 12 | 4.00 | Aluminum | | Extrap |
| | 12" | 12.0 | 12.2 | 12 | 4.00 | Aluminum | | 6 |
| | 13.5" | 13.5 | 3.0 | 12 | 4.25 | Aluminum | | Interp |
| | 15" | 15.0 | 5.2 | 12 | 4.75 | Aluminum | | 1, 6 |
| | 17" | 17.0 | 3.8 | 12 | 6.00 | Aluminum | | Interp |
| | 18.5" | 18.5 | 6.3 | 14 | 7.50 | Aluminum | | 1, 3, 5, 7 |
| | 22" | 22.0 | 4.9 | 12 | 10.25 | Aluminum | | 2, 4, 8, 11 |
| | 24" | 24.0 | 5.6 | 14 | 12.50 | Aluminum | | 8 |
| | 27" | 27.0 | 6.1 | 14 | 15.00 | Aluminum | | 4 |
| 30" | 31.0 | 6.8 | 14 | 18.00 | Aluminum | | 9, 10 | |
| Axial Flow Fan (Multiwing) | 16" | 16.0 | 0.3 | 4 | 4.50 | Steel Hub, PAGI Composite Blades | <i>Adjustable blade</i> | 3, 7 |
| | 22" | 22.0 | 0.3 | 5 | 5.50 | Steel Hub, PAGI Composite Blades | <i>Adjustable blade</i> | 2 |
| Condenser Fan (Revcor) | 30" | 30.0 | 0.5 | 2 | 9.75 | Steel Hub, PAGI Composite Blades | | 2, 5, 8, 11 |
| | 30" | 30.0 | 0.5 | 3 | 12.25 | Steel Hub, PAGI Composite Blades | | 2, 5, 8, 11 |
| | | | | | | | | |

SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENT MATRIX

1901025-CR-001-R1



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|--|--|----------------|
| Manufacturer: AAON | Table Description: Motors (≤ 20 Hp) | TABLE 3 |
| Model Line: RQ, RN Series Rooftop Units | | |

| | | | |
|--------------------------------|--------------------------------------|------------------------------|-------------|
| Building Code: CBC 2022 | Seismic Certification Limits: | $S_{DS} = 2.5 g$ $z/h = 1.0$ | $I_p = 1.5$ |
| | | $S_{DS} = 2.5 g$ $z/h = 0.0$ | |

| Component Type | Manufacturer | Model | Description | Notes | UUT |
|----------------|--------------|---------|-------------|-------|----------|
| Fan Motors | Genteq | 1/6 HP | 9 lbs. | | 7 |
| | | 1/5 HP | 9 lbs. | | Interp |
| | | 1/4 HP | 10.5 lbs. | | Interp |
| | | 1/3 HP | 12 lbs. | | Interp |
| | | 1/2 HP | 15 lbs. | | 3 |
| | | 3/4 HP | 20 lbs. | | Interp |
| | | 1 HP | 35 lbs. | | 1, 8 |
| | SN-Tech | 1/4 HP | 10.5 lbs. | | 1 |
| | | 1/3 HP | 12 lbs. | | 5 |
| | | 1/2 HP | 15 lbs. | | Interp |
| | | 3/4 HP | 20 lbs. | | Interp |
| | | 1 HP | 35 lbs. | | 7, 8 |
| | AO Smith | 1/4 HP | 10.5 lbs. | | Extrap |
| | | 1/3 HP | 12 lbs. | | Extrap |
| | | 1/2 HP | 15 lbs. | | Extrap |
| | | 3/4 HP | 20 lbs. | | 10 |
| | | 1 HP | 35 lbs. | | 2, 3, 11 |
| | Emerson | 1/4 HP | 10.5 lbs. | | Extrap |
| | | 1/3 HP | 12 lbs. | | Extrap |
| | | 1/2 HP | 15 lbs. | | Extrap |
| | | 3/4 HP | 20 lbs. | | Extrap |
| 1 HP | | 35 lbs. | | 2, 11 | |
| | | 1.5 HP | 39 lbs. | | Interp |

SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENT MATRIX

1901025-CR-001-R1



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|--|--|----------------|
| Manufacturer: AAON | Table Description: Motors (≤ 20 Hp) | TABLE 3 |
| Model Line: RQ, RN Series Rooftop Units | | |

| | | | |
|--------------------------------|--------------------------------------|--|-------------|
| Building Code: CBC 2022 | Seismic Certification Limits: | $S_{DS} = 2.5 g$ $z/h = 1.0$ $S_{DS} = 2.5 g$ $z/h = 0.0$ | $I_p = 1.5$ |
|--------------------------------|--------------------------------------|--|-------------|

| Component Type | Manufacturer | Model | Description | Notes | UUT |
|----------------|--------------|-----------|-------------|-----------|----------|
| Fan Motors | Emerson | 2 HP | 46 lbs. | | 5 |
| | | 3 HP | 77 lbs. | | Interp |
| | | 5 HP | 90 lbs. | | 2, 11 |
| | | 7.5 HP | 114 lbs. | | 2, 11 |
| | Baldor | 1 HP | 35 lbs. | | 2, 11 |
| | | 1.5 HP | 46 lbs. | | Interp |
| | | 2 HP | 77 lbs. | | Interp |
| | | 3 HP | 90 lbs. | | Interp |
| | | 5 HP | 114 lbs. | | Interp |
| | | 7.5 HP | 128 lbs. | | Interp |
| | | 10 HP | 217 lbs. | | 4, 10 |
| | | 15 HP | 372 lbs. | | Interp |
| | | 20 HP | 478 lbs. | | 4, 9, 10 |
| | | US Motors | 1/4 HP | 10.5 lbs. | |
| | 1/3 HP | | 12 lbs. | | Extrap |
| | 1/2 HP | | 15 lbs. | | Extrap |
| | 3/4 HP | | 20 lbs. | | Extrap |
| | 1 HP | | 35 lbs. | | 6 |
| | 1.5 HP | | 39 lbs. | | Interp |
| | 2 HP | | 46 lbs. | | Interp |
| 3 HP | 77 lbs. | | | 6 | |
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SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENT MATRIX

1901025-CR-001-R1



| Manufacturer: AAON Model Line: RQ, RN Series Rooftop Units | | Table Description: Compressors | | | TABLE 4 | |
|---|--------------------------------------|---------------------------------------|--------------------------------------|-------------|--|--|
| Building Code: CBC 2022 | | Seismic Certification Limits: | | | $S_{DS} = 2.5g \quad z/h = 1.0$ $S_{DS} = 2.5g \quad z/h = 0.0$ | |
| | | | | | $I_p = 1.5$ | |
| Component Type | Manufacturer | Model | Description | Notes | UUT | |
| Scroll Compressor | Copeland | ZP16K5E | 16,000 BtuH, 230V or 460V, 40 lbs. | | Extrap | |
| | | ZPS20K4E | 20,000 BtuH, 230V or 460V, 73 lbs. | 460V tested | 1, 7 | |
| | | ZP24K5E | 24,000 BtuH, 230V or 460V, 47 lbs. | | Interp | |
| | | ZP30KCE | 30,000 BtuH, 230V or 460V, 48 lbs. | | Interp | |
| | | ZPS30K4E | 30,000 BtuH, 230V or 460V, 48 lbs. | | Interp | |
| | | ZP31K5E | 31,000 BtuH, 230V or 460V, 48 lbs. | | Interp | |
| | | ZPS31K4E | 31,000 BtuH, 230V or 460V, 48 lbs. | | Interp | |
| | | ZP40KCE | 40,000 BtuH, 230V or 460V, 74 lbs. | | Interp | |
| | | ZPS40KCE | 40,000 BtuH, 230V or 460V, 78 lbs. | | Interp | |
| | | ZP42K5E | 42,000 BtuH, 230V or 460V, 67 lbs. | | Interp | |
| | | ZPS49K5E | 49,000 BtuH, 230V or 460V, 84 lbs. | | Interp | |
| | | ZP51K5E | 51,000 BtuH, 230V or 460V, 72 lbs. | | Interp | |
| | | ZPS51K4E | 51,000 BtuH, 230V or 460V, 84 lbs. | | Interp | |
| | | ZP54K5E | 54,000 BtuH, 230V or 460V, 72 lbs. | | Interp | |
| | | ZP67KCE | 67,000 BtuH, 230V or 460V, 88 lbs. | | Interp | |
| | | ZP83KCE | 83,000 BtuH, 230V or 460V, 90 lbs. | | Interp | |
| | | ZP91KCE | 91,000 BtuH, 230V or 460V, 90 lbs. | | Interp | |
| | | ZP103KCE | 103,000 BtuH, 230V or 460V, 134 lbs. | | Interp | |
| | | ZP137KCE | 137,000 BtuH, 230V or 460V, 135 lbs. | | Interp | |
| | | ZP154KCE | 154,000 BtuH, 230V or 460V, 147 lbs. | 230V tested | 8 | |
| ZP182KCE | 182,000 BtuH, 230V or 460V, 147 lbs. | 460V tested | 9, 10 | | | |

SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENT MATRIX

1901025-CR-001-R1



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|--|---------------------------------------|----------------|
| Manufacturer: AAON | Table Description: Compressors | TABLE 4 |
| Model Line: RQ, RN Series Rooftop Units | | |

| | | |
|--------------------------------|---|-------------|
| Building Code: CBC 2022 | Seismic Certification Limits: $S_{DS} = 2.5 g$ $z/h = 1.0$ $S_{DS} = 2.5 g$ $z/h = 0.0$ | $I_p = 1.5$ |
|--------------------------------|---|-------------|

| Component Type | Manufacturer | Model | Description | Notes | UUT |
|-----------------------------|--------------|-----------|--------------------------------------|-------------------|----------|
| Digital Scoll Compressor | Copeland | ZPD34K5E | 34,000 BtuH, 230V or 460V, 68 lbs. | 460V tested | 1 |
| | | ZPD42K5E | 42,000 BtuH, 230V or 460V, 72 lbs. | | Interp |
| | | ZPD54K5E | 54,000 BtuH, 230V or 460V, 77 lbs. | | Interp |
| | | ZPD61KCE | 61,000 BtuH, 230V or 460V, 89 lbs. | 230V tested | 5 |
| | | ZPD83KCE | 83,000 BtuH, 230V or 460V, 90 lbs. | | Interp |
| | | ZPD91KCE | 91,000 BtuH, 230V or 460V, 90 lbs. | | Interp |
| | | ZPD103KCE | 103,000 BtuH, 230V or 460V, 134 lbs. | 460V tested | 6 |
| | | ZPD137KCE | 137,000 BtuH, 230V or 460V, 135 lbs. | | Interp |
| | | ZPD154KCE | 154,000 BtuH, 230V or 460V, 147 lbs. | 230V, 460V tested | 2, 8, 11 |
| | | ZPD182KCE | 182,000 BtuH, 230V or 460V, 147 lbs. | 460V tested | 9, 10 |
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SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENT MATRIX

1901025-CR-001-R1



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|----------------------|-----------------------------|---------------------------|------|
| Manufacturer: | AAON | Table Description: | VFDs |
| Model Line: | RQ, RN Series Rooftop Units | TABLE 5 | |

| | | | |
|--------------------------------|--------------------------------------|-----------------------------|-------------|
| Building Code: CBC 2022 | Seismic Certification Limits: | $S_{DS} = 2.5g$ $z/h = 1.0$ | $I_p = 1.5$ |
| | | $S_{DS} = 2.5g$ $z/h = 0.0$ | |

| Component Type | Manufacturer | Model | Description | Notes | UUT |
|--------------------------|---------------|------------------|-------------------------------|-------|--------|
| Variable Frequency Drive | Yaskawa V1000 | CIMR-VU2A0006FAA | 1HP, 230/208V VFD, 3 lbs. | | Extrap |
| | | CIMR-VU4A0002FAA | 1HP, 460V VFD, 3 lbs. | | Extrap |
| | | CIMR-VU2A0010FAA | 2HP, 230/208V VFD, 4.2 lbs. | | Extrap |
| | | CIMR-VU4A0004FAA | 2HP, 460V VFD, 3.5 lbs. | | Extrap |
| | | CIMR-VU2A0012FAA | 3HP, 230/208V VFD, 4.2 lbs. | | Extrap |
| | | CIMR-VU4A0005FAA | 3HP, 460V VFD, 4.2 lbs. | | Extrap |
| | | CIMR-VU2A0020FAA | 5HP, 230/208V VFD, 5.7 lbs. | | Extrap |
| | | CIMR-VU4A0009FAA | 5HP, 460V VFD, 5.7 lbs. | | Extrap |
| | | CIMR-VU2A0030FAA | 7.5HP, 230/208V VFD, 8.4 lbs. | | Interp |
| | | CIMR-VU4A0018FAA | 7.5/10HP, 460V VFD, 8.4 lbs. | | 2, 11 |
| | | CIMR-VU2A0040FAA | 10HP, 230/208V VFD, 8.4 lbs. | | 8 |
| | | CIMR-VU2A0056FAA | 15HP, 230/208V VFD, 12.1 lbs. | | Interp |
| | | CIMR-VU4A0023FAA | 15HP, 460V VFD, 8.4 lbs. | | Interp |
| | | CIMR-VU4A0038FAA | 20HP, 460V VFD, 11.2 lbs. | | 9, 10 |
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SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENT MATRIX

1901025-CR-001-R1



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|----------------------|-----------------------------|---------------------------|------|----------------|
| Manufacturer: | AAON | Table Description: | VFDs | TABLE 5 |
| Model Line: | RQ, RN Series Rooftop Units | | | |

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|--------------------------------|--------------------------------------|------------------|-------------|-------------|
| Building Code: CBC 2022 | Seismic Certification Limits: | $S_{DS} = 2.5 g$ | $z/h = 1.0$ | $I_p = 1.5$ |
| | | $S_{DS} = 2.5 g$ | $z/h = 0.0$ | |

| Component Type | Manufacturer | Model | Description | Notes | UUT |
|--------------------------|------------------|---------------------|------------------------------|-------|--------|
| Variable Frequency Drive | Yaskawa E7 | CIMR-E7U20P7 | 1HP, 230/208V VFD, 4.5 lbs. | | Extrap |
| | | CIMR-E7U40P7 | 1HP, 460V VFD, 2.1 lbs. | | Extrap |
| | | CIMR-E7U21P5 | 2HP, 230/208V VFD, 7.8 lbs. | | Extrap |
| | | CIMR-E7U41P5 | 2HP, 460V VFD, 3.7 lbs. | | Extrap |
| | | CIMR-E7U22P2 | 3HP, 230/208V VFD, 10.8 lbs. | | Interp |
| | | CIMR-E7U42P2 | 3HP, 460V VFD, 5.3 lbs. | | 6 |
| | | CIMR-E7U23P7 | 5HP, 230/208V VFD, 16.8 lbs. | | Interp |
| | | CIMR-E7U43P7 | 5HP, 460V VFD, 7.6 lbs. | | Interp |
| | | CIMR-E7U25P5 | 7.5HP, 230/208V VFD, 23 lbs. | | Interp |
| | | CIMR-E7U45P5 | 7.5HP, 460V VFD, 12.5 lbs. | | Interp |
| | | CIMR-E7U47P5 | 10HP, 460V VFD, 17 lbs. | | Interp |
| | | CIMR-E7U49P0 | 15HP, 460V VFD, 23.2 lbs. | | Interp |
| | | CIMR-E7U4011 | 20HP, 460V VFD, 23.2 lbs. | | 4 |
| | Yaskawa Z1000 | CIMR-Z4A0027 | 20HP, 460V VFD, 29 lbs. | | 9 |
| | Yaskawa J1000 | CIMR-JU2A0006BAA | 230/208V VFD, 2.5 lbs. | | Interp |
| | CIMR-JU4A0003BAA | 460V VFD, 4 lbs. | | 3 | |
| | CIMR-JU2A0010BAA | 230/208 VFD, 4 lbs. | | 5 | |
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SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENT MATRIX

1901025-CR-001-R1



| | | |
|--|--|----------------|
| Manufacturer: AAON | Table Description: Water/Steam Coils and DX Coils | TABLE 6 |
| Model Line: RQ, RN Series Rooftop Units | | |

Building Code: CBC 2022 **Seismic Certification Limits:** $S_{DS} = 2.5g$ $z/h = 1.0$ $I_p = 1.5$
 $S_{DS} = 2.5g$ $z/h = 0.0$

| Model Line (Manufacturer) | Model | Dimension (in) ¹ | | | Weight (lbs.) ¹ | Material | Notes | UUT |
|---|--------------|-----------------------------|-------|--------|-------------------------------|---------------------------|--|--------|
| | | Depth | Width | Height | | | | |
| Tube and Fin Coils - Water or Steam ² (AAON) | Tube and Fin | 1 row | 20.0 | 15.5 | 10 | Copper tube, aluminum fin | .017-.049 tube, .006-.01 fin, 6-24 FPI | Extrap |
| | Tube and Fin | 1 row | 20.0 | 32.0 | 10 | Copper tube, aluminum fin | .017-.049 tube, .006-.01 fin, 6-24 FPI | 3 |
| | Tube and Fin | 2 row | 80.0 | 46.0 | 70 | Copper tube, aluminum fin | .017-.049 tube, .006-.01 fin, 6-24 FPI; UUT: Steam Coil | 9 |
| | Tube and Fin | 2 row | 39.0 | 27.0 | 80 | Copper tube, aluminum fin | .017-.049 tube, .006-.01 fin, 6-24 FPI | 4 |
| | Tube and Fin | 2 row | 75.0 | 20.0 | 81 | Copper tube, aluminum fin | .017-.049 tube, .006-.01 fin, 6-24 FPI; UUT: Steam Coil | 9 |
| | Tube and Fin | 2 row | 51.0 | 50.7 | 140 | Copper tube, aluminum fin | .017-.049 tube, .006-.01 fin, 6-24 FPI | 4 |
| | Tube and Fin | 6 row | 25.0 | 15.6 | 32 | Copper tube, aluminum fin | .017-.049 tube, .006-.01 fin, 6-24 FPI | 3 |
| | Tube and Fin | 6 row | 20.0 | 32.0 | 46 | Copper tube, aluminum fin | .017-.049 tube, .006-.01 fin, 6-24 FPI | 3 |
| | Tube and Fin | 6 row | 51.5 | 52.3 | 310 | Copper tube, aluminum fin | .017-.049 tube, .006-.01 fin, 6-24 FPI | 4 |
| | Tube and Fin | 6 row | 90.0 | 30.0 | 330 | Copper tube, aluminum fin | .017-.049 tube, .006-.01 fin, 6-24 FPI | 9 |
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Additional Notes:
1. Interpolated sizes are allowable. Sizes and dimensions can't exceed maximum tested.
2. Water and steam coils use identical construction. All tested coils were filled with water unless otherwise noted.

SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENT MATRIX

1901025-CR-001-R1



| | | |
|--|--|----------------|
| Manufacturer: AAON | Table Description: Water/Steam Coils and DX Coils | TABLE 6 |
| Model Line: RQ, RN Series Rooftop Units | | |

Building Code: CBC 2022 **Seismic Certification Limits:** $S_{DS} = 2.5g$ $z/h = 1.0$ $I_p = 1.5$
 $S_{DS} = 2.5g$ $z/h = 0.0$

| Model Line (Manufacturer) | Model | Dimension (in) ¹ | | | Weight (lbs.) ¹ | Material | Notes | UUT |
|--------------------------------------|--------------|-----------------------------|-------|--------|-------------------------------|---------------------------|--|--------|
| | | Depth | Width | Height | | | | |
| Tube and Fin Coils - DX (AAON) | Tube and Fin | 1 row | 20.0 | 15.5 | 10 | Copper tube, aluminum fin | .017-.049 tube, .006-.01 fin, 6-24 FPI | Extrap |
| | Tube and Fin | 1 row | 20.6 | 31.7 | 10 | Copper tube, aluminum fin | .017-.049 tube, .006-.01 fin, 6-24 FPI | 1, 5 |
| | Tube and Fin | 1 row | 34.7 | 31.0 | 15 | Copper tube, aluminum fin | .017-.049 tube, .006-.01 fin, 6-24 FPI | 6 |
| | Tube and Fin | 1 row | 51.0 | 48.0 | 32 | Copper tube, aluminum fin | .017-.049 tube, .006-.01 fin, 6-24 FPI | 2, 11 |
| | Tube and Fin | 2 row | 60.0 | 45.0 | 184 | Copper tube, aluminum fin | .017-.049 tube, .006-.01 fin, 6-24 FPI | 10 |
| | Tube and Fin | 3 row | 21.0 | 36.0 | 32 | Copper tube, aluminum fin | .017-.049 tube, .006-.01 fin, 6-24 FPI | 1, 7 |
| | Tube and Fin | 3 row | 59.0 | 102.0 | 340 | Copper tube, aluminum fin | .017-.049 tube, .006-.01 fin, 6-24 FPI | 2 |
| | Tube and Fin | 4 row | 21.0 | 36.0 | 41 | Copper tube, aluminum fin | .017-.049 tube, .006-.01 fin, 6-24 FPI | 5 |
| | Tube and Fin | 4 row | 35.0 | 35.0 | 90 | Copper tube, aluminum fin | .017-.049 tube, .006-.01 fin, 6-24 FPI | 6 |
| | Tube and Fin | 4 row | 34.7 | 77.5 | 115 | Copper tube, aluminum fin | .017-.049 tube, .006-.01 fin, 6-24 FPI | 5 |
| | Tube and Fin | 4 row | 52.0 | 55.0 | 185 | Copper tube, aluminum fin | .017-.049 tube, .006-.01 fin, 6-24 FPI | 2, 11 |
| | Tube and Fin | 6 row | 52.0 | 55.0 | 248 | Copper tube, aluminum fin | .017-.049 tube, .006-.01 fin, 6-24 FPI | 8 |
| | Tube and Fin | 6 row | 86.0 | 35.0 | 348 | Copper tube, aluminum fin | .017-.049 tube, .006-.01 fin, 6-24 FPI | 10 |
| Microchannel DX Coils (Dephi) | Microchannel | | 20.0 | 15.5 | 10 | Aluminum | .012-.016 tube, 6-24 FPI | Extrap |
| | Microchannel | | 24.0 | 74.0 | 35 | Aluminum | .012-.016 tube, 6-24 FPI | 7 |
| | Microchannel | | 61 | 101.25 | 150 | Aluminum | .012-.016 tube, 6-24 FPI | 8 |
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Additional Notes:
1. Interpolated sizes are allowable. Sizes and dimensions can't exceed maximum tested.

SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENT MATRIX

1901025-CR-001-R1



| Manufacturer: AAON Model Line: RQ, RN Series Rooftop Units | | Table Description: Condenser | | | TABLE 7 | |
|---|--------------|--------------------------------------|---------------------|-------|--|--|
| Building Code: CBC 2022 | | Seismic Certification Limits: | | | $S_{DS} = 2.5g \quad z/h = 1.0$ $S_{DS} = 2.5g \quad z/h = 0.0$ | |
| | | | | | $I_p = 1.5$ | |
| Component Type | Manufacturer | Model | Description | Notes | UUT | |
| Coaxial Condenser | Packless | COAX-2350-S | 3-1/2 TON, 24 lbs. | | 1 | |
| | | COAX-2500-S | 5 TON, 28 lbs. | | Interp | |
| | | COCX-2500-S | 5 TON, 32 lbs. | | Interp | |
| | | COAX-2600-S | 6 TON, 29 lbs. | | Interp | |
| | | COAX-2750-S | 7-1/2 TON, 31 lbs. | | Interp | |
| | | COCX-2750-S | 7-1/2 TON, 28 lbs. | | Interp | |
| | | COAX-3010-S | 10 TON, 34 lbs. | | Interp | |
| | | COCX-1507-S | 10 TON, 44 lbs. | | 3 | |
| Braze Plate Heat Exchanger | Alfa Laval | ACH70-50EQ | 70x50HX, 25 lbs. | | Extrap | |
| | | ACH70-64EQ | 70x64HX, 27 lbs. | | 6 | |
| | | ACH230-50DQ | 230x50HX, 63 lbs. | | Interp | |
| | | ACH230-74DQ | 230x74HX, 85 lbs. | | Interp | |
| | | ACH230-106DQ | 230x106HX, 105 lbs. | | 9 | |
| Braze Plate Heat Exchanger | SWEP | DP300X90/1P-MCM | 300x90HX, 87 lbs. | | 4, 9 | |
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SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENT MATRIX

1901025-CR-001-R1



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|--|--|----------------|
| Manufacturer: AAON | Table Description: Electric Heaters | TABLE 8 |
| Model Line: RQ, RN Series Rooftop Units | | |

Building Code: CBC 2022 **Seismic Certification Limits:** $S_{DS} = 2.5g$ $z/h = 1.0$ $I_p = 1.5$
 $S_{DS} = 2.5g$ $z/h = 0.0$

| Model Line (Manufacturer) | Model | Dimension (in) | | | Weight (lbs.) | Material | Notes | UUT |
|------------------------------|-------------------|----------------|-------|--------|------------------|--------------------------|---------------------|--------|
| | | Depth | Width | Height | | | | |
| Coil Heaters (Tutco) | 5 kW (208V-480V) | 8.8 | 3.3 | 18.0 | 5 | Carbon steel, Ni/Cr Wire | UUT: 2 cells, 240V | 5 |
| | 5 kW (208V-480V) | 8.8 | 3.3 | 25.3 | 8 | Carbon steel, Ni/Cr Wire | | Interp |
| | 10 kW (208V-480V) | 8.8 | 3.3 | 18.0 | 5 | Carbon steel, Ni/Cr Wire | UUT: 3 cells, 240V | 5 |
| | 10 kW (208V-480V) | 8.8 | 3.3 | 25.3 | 8 | Carbon steel, Ni/Cr Wire | | Interp |
| | 10 kW (208V-480V) | 8.8 | 3.3 | 27.8 | 9 | Carbon steel, Ni/Cr Wire | | Interp |
| | 10 kW (208V-480V) | 8.8 | 3.3 | 31.6 | 10 | Carbon steel, Ni/Cr Wire | UUT: 4 cells, 480V | 8 |
| | 20 kW (208V-480V) | 8.8 | 3.3 | 25.3 | 8 | Carbon steel, Ni/Cr Wire | UUT: 12 cells, 480V | 9 |
| | 20 kW (208V-480V) | 8.8 | 3.3 | 27.8 | 9 | Carbon steel, Ni/Cr Wire | | Interp |
| | 20 kW (208V-480V) | 8.8 | 3.3 | 31.6 | 10 | Carbon steel, Ni/Cr Wire | UUT: 4 cells, 480V | 8 |
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SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENT MATRIX

1901025-CR-001-R1



| Manufacturer: AAON Model Line: RQ, RN Series Rooftop Units | | Table Description: Gas Heaters | | | | | TABLE 9 | | | |
|---|--------------|---------------------------------------|--------------|---------------|--------------------------|--------------------|--|------------|-------------|--|
| Building Code: CBC 2022 | | Seismic Certification Limits: | | | | | $S_{DS} = 2.5g \quad z/h = 1.0$ $S_{DS} = 2.5g \quad z/h = 0.0$ | | $I_p = 1.5$ | |
| Model Line (Manufacturer) | Model | Dimension (in) | | | Weight (lbs.) | Material | Notes | UUT | | |
| | | Depth | Width | Height | | | | | | |
| Gas Heater (AAON) | 60 MBTU | 29.0 | 28.0 | 20.8 | 170 | Al or SS | 3 tubes (UUT: Al) | 1 | | |
| | 90 MBTU | 37.3 | 23.8 | 19.8 | 165 | SS | 5 tubes | Interp | | |
| | 100 MBTU | 29.0 | 28.0 | 20.8 | 195 | SS | 3 tubes | Interp | | |
| | 140 MBTU | 29.0 | 28.0 | 20.8 | 220 | SS30 | 7 tubes | Interp | | |
| | 150 MBTU | 37.3 | 23.8 | 19.8 | 195 | SS | 5 tubes | Interp | | |
| | 160 MBTU | 29.0 | 28.0 | 20.8 | 235 | SS | 8 tubes | Interp | | |
| | 195 MBTU | 36.0 | 40.0 | 21.6 | 255 | SS | 6 tubes | Interp | | |
| | 210 MBTU | 37.3 | 23.8 | 19.8 | 290 | SS | 7 tubes | Interp | | |
| | 270 MBTU | 50.7 | 22.0 | 21.4 | 250 | SS | 1-6 tubes | Interp | | |
| | 293 MBTU | 36.0 | 40.0 | 21.6 | 300 | SS | 9 tubes | Interp | | |
| | 390 MBTU | 36.0 | 40.0 | 21.6 | 33 | SS | 12 tubes | Interp | | |
| | 405 MBTU | 50.7 | 22.0 | 21.4 | 290 | SS | 1-3 & 1-6 tubes | Interp | | |
| | 540 MBTU | 22.0 | 22.0 | 21.4 | 580 | SS | 2-6 tubes (UUT: SS) | 2, 11 | | |
| 1080 MBTU | 101.4 | 22.0 | 21.4 | 1160 | SS | 24 tubes (UUT: SS) | 10 | | | |
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SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENT MATRIX

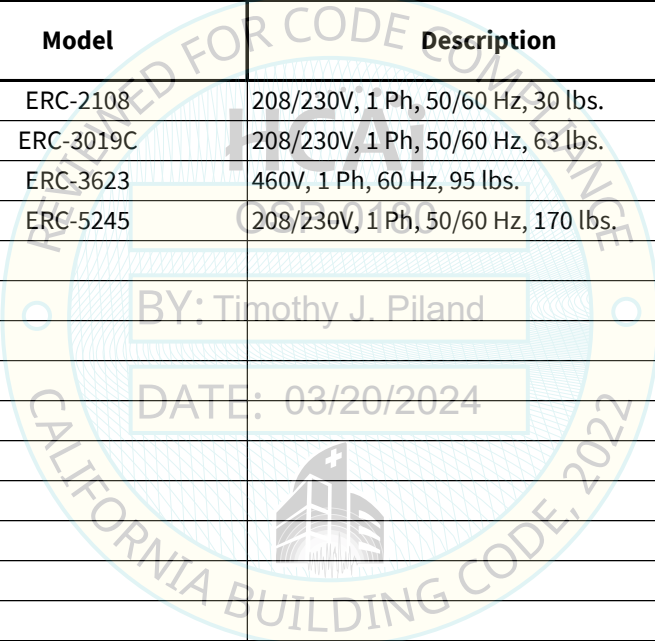
1901025-CR-001-R1



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|--|--------------------------------------|-----------------|
| Manufacturer: AAON | Table Description: Heat Wheel | TABLE 10 |
| Model Line: RQ, RN Series Rooftop Units | | |

| | | | |
|--------------------------------|--------------------------------------|------------------------------|-------------|
| Building Code: CBC 2022 | Seismic Certification Limits: | $S_{DS} = 2.5 g$ $z/h = 1.0$ | $I_p = 1.5$ |
| | | $S_{DS} = 2.5 g$ $z/h = 0.0$ | |

| Component Type | Manufacturer | Model | Description | Notes | UUT |
|----------------|--------------|-----------|------------------------------------|-------|--------|
| Heat Wheel | Air Exchange | ERC-2108 | 208/230V, 1 Ph, 50/60 Hz, 30 lbs. | | 1, 5 |
| | | ERC-3019C | 208/230V, 1 Ph, 50/60 Hz, 63 lbs. | | Interp |
| | | ERC-3623 | 460V, 1 Ph, 60 Hz, 95 lbs. | | Interp |
| | | ERC-5245 | 208/230V, 1 Ph, 50/60 Hz, 170 lbs. | | 4, 8 |
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UNIT UNDER TEST (UUT) SUMMARY SHEET

1901025-CR-001-R1



Manufacturer: AAON
Model Line: RQ, RN Series Rooftop Units

| UUT | Unit Description | Report Number (UUT #) | Testing Lab | Year Tested | ISO 17025 Accredited? | S _{DS} | z/h | I _p |
|-----|---------------------|-----------------------|---------------------------|-------------|-----------------------|-----------------|------------|----------------|
| 1 | RQ-002-3-V-G79C-211 | EL: 9730 | Clark Testing | 2011 | No ¹ | 2.5 2.5 | 1.0 0.0 | 1.5 |
| 2 | RN-030-3-0-E61S-7C2 | EL: 9730 | Clark Testing | 2011 | No ¹ | 2.5 2.5 | 1.0 0.0 | 1.5 |
| 3 | RQ-006-3-V-0W9N-FJM | EL: 9730 | Clark Testing | 2011 | No ¹ | 2.5 2.5 | 1.0 0.0 | 1.5 |
| 4 | RN-030-3-0-0W9M-DJM | EL: 9730 | Clark Testing | 2011 | No ¹ | 2.5 2.5 | 1.0 0.0 | 1.5 |
| 5 | RQ-006-2-V-E61E-14A | EL: 9730 | Clark Testing | 2011 | No ¹ | 2.5 2.5 | 1.0 0.0 | 1.5 |
| 6 | RN-010-3-0-E79E-000 | EL: 9730 | Clark Testing | 2011 | No ¹ | 2.5 2.5 | 1.0 0.0 | 1.5 |
| 7 | RQ-002-3-V-GA12-000 | EL: 9730 | Clark Testing | 2011 | No ¹ | 2.5 2.5 | 1.0 0.0 | 1.5 |
| 8 | RN-030-2-0-EB19-19A | EL: 9730 | Clark Testing | 2011 | No ¹ | 2.5 2.5 | 1.0 0.0 | 1.5 |
| 9 | RN-070-3-0-0W9M-DJM | 2011-0112-TR-001, r0 | Pacific Earthquake (PEER) | 2011 | No ¹ | 2.5 2.5 | 1.0 0.0 | 1.5 |
| 10 | RN-070-3-0-EQ19-7C2 | 2011-0112-TR-001, r0 | Pacific Earthquake (PEER) | 2011 | No ¹ | 2.5 2.5 | 1.0 0.0 | 1.5 |
| 11 | RN-030-3-0-E61T-7C2 | 2011-0112-TR-001, r0 | Pacific Earthquake (PEER) | 2011 | No ¹ | 2.5 2.5 | 1.0 0.0 | 1.5 |
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Notes:
1. Clark and PEER were not ISO 17025 accredited at the time of testing but have been reviewed by TRU Compliance and found to meet the requirements for ICC-ES AC156 testing. Review forms are on file with TRU Compliance.

UNIT UNDER TEST (UUT) SUMMARY SHEET

1901025-CR-001-R1



| | |
|--|--------------|
| Manufacturer: AAON | UUT 1 |
| Model Line: RQ, RN Series Rooftop Units | |
| Model Number: RQ-002-3-V-G79C-211 | |
| Serial Number: 201105-AYGB01675 | |

Product Construction Summary:
2" foam injected galvanized steel panel construction. 18" galvanized steel solid bottom curb.

Options/Subcomponent Summary:
Unit Configuration: Water Source/Geothermal Heat Pump; Refrigerant Style: Copeland High Efficiency R-410A Digital Compressor; Heating Type: Natural Gas Aluminized; Controls: Micro Control Systems; Fans: ACME 15" Backward Curved Plenum Power Exhaust Fan w/ Genteq 1hp motor, ACME 19" Direct Drive Backwards Curved Plenum Supply Fan w/ SN-Tech 1/4 hp motor (All Aluminum Blade); Coil: AAON Copper Tube Aluminum Fin Evaporator and Hot Gas Reheat Coil. Condenser: Packless Coaxial; Additional Components: AAONAIRE Energy Recovery Wheel, 2" & 4" Pleated Filters, Balancing Valves, Water Flow Switch, Head Pressure Control, Economizer, 460V

| UUT Properties | | | | | | |
|----------------------------|----------------|-------|--------|-------------------------------|-----------|----------|
| Weight (lbs.) ¹ | Dimension (in) | | | Lowest Natural Frequency (Hz) | | |
| | Depth | Width | Height | Front-Back | Side-Side | Vertical |
| 1,720 | 120.0 | 44.0 | 45.0 | 12.9 | 11.1 | 10.3 |

| 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 2022 | ICC-ES AC156 | 2.5 | 1.0 | 1.5 | 4.00 | 3.00 | 1.68 | 0.67 | |
| | | 2.5 | 0.0 | | | | | | |

Test Mounting Details: (Test Report: EL: 9730)



UUT1 was base mounted - rigid to curb using standard manufacturer provided brackets (see next page). Curb mounted to supplemental base using twenty-four (24) 3/8"-11 bolts with nuts, flat, and lock washers.

¹Weight shown includes unit, curb and supplemental base frame, unit 1,076 lbs.

Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.

Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

1901025-CR-001-R1

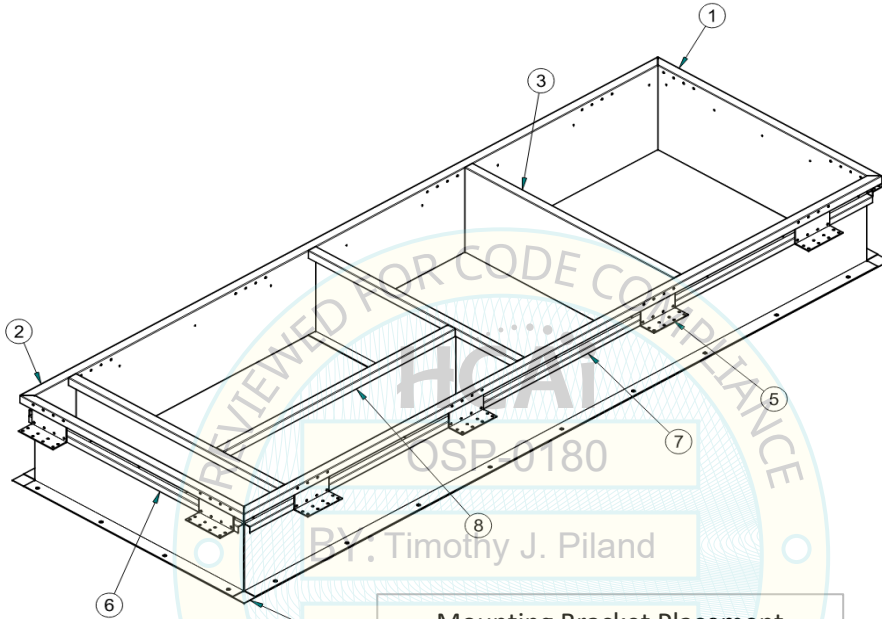


Manufacturer: AAON
Model Line: RQ, RN Series Rooftop Units
Model Number: RQ-002-3-V-G79C-211

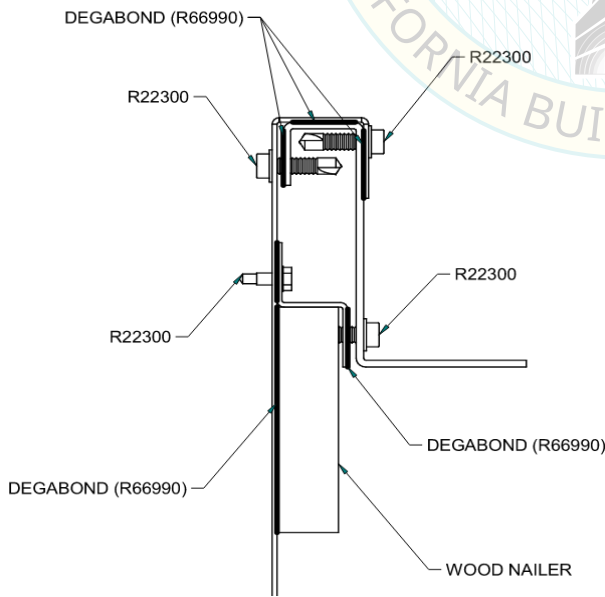
UUT 1

Serial Number: 201105-AYGB01675

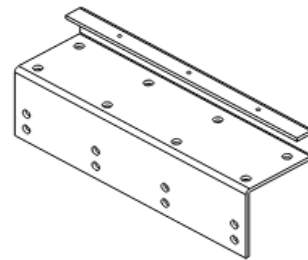
Test Mounting Details: (cont.)



Mounting Bracket Placement
(total qty: 12)



Mounting Bracket Attachment
(1/4" x 1" screws typ.)



Mounting Bracket
(10ga galv. carbon steel)

UNIT UNDER TEST (UUT) SUMMARY SHEET

1901025-CR-001-R1



| | |
|--|--------------|
| Manufacturer: AAON | UUT 2 |
| Model Line: RQ, RN Series Rooftop Units | |
| Model Number: RN-030-3-0-E61S-7C2 | |
| Serial Number: 201105-BNGT15726 / 201106-BNGT-17104 | |

Product Construction Summary:
2" foam injected galvanized steel panel construction. 24" galvanized steel solid bottom curb.

Options/Subcomponent Summary:
Unit Configuration: Air Source Heat Pump; Refrigerant Style: Copeland R-410A Variable Capacity Scroll Compressor; Heating Type: LP Gas Stainless Steel, Modulating Hot Gas Reheat; Controls: Wattmaster; Fans: Multiwing 22" Direct Drive Axial Flow Power Return Fan w/ Emerson 5hp motor, ACME 22" Direct Drive Backwards Curved Plenum Supply fan w/ Emerson 7.5 hp motor, Revcor 30" Condenser Fan w/ AO Smith, Emerson & Baldor 1hp motors; Coil: AAON Copper Tube Aluminum Fin Evaporative and Condenser Coils; Additional Components: 2" & 4" Pleated Filters, Economizer, 460V

| UUT Properties | | | | | | |
|----------------------------|----------------|-------|--------|-------------------------------|-----------|----------|
| Weight (lbs.) ¹ | Dimension (in) | | | Lowest Natural Frequency (Hz) | | |
| | Depth | Width | Height | Front-Back | Side-Side | Vertical |
| 4,815 | 157.0 | 64.0 | 60.0 | 11.3 | 5.7 | 8.5 |

| 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 2022 | ICC-ES AC156 | 2.5 | 1.0 | 1.5 | 4.00 | 3.00 | 1.68 | 0.67 | |
| | | 2.5 | 0.0 | | | | | | |

Test Mounting Details: (Test Report: EL: 9730)



UUT2 was base mounted - rigid to curb using standard manufacturer provided brackets (see next page). Curb mounted to supplemental base using twenty-one (21) 3/8"-11 bolts with nuts, flat, and lock washers.
¹Weight shown includes unit, curb and supplemental base frame, UUT weight 3,953 lbs.
 Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.
 Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

1901025-CR-001-R1

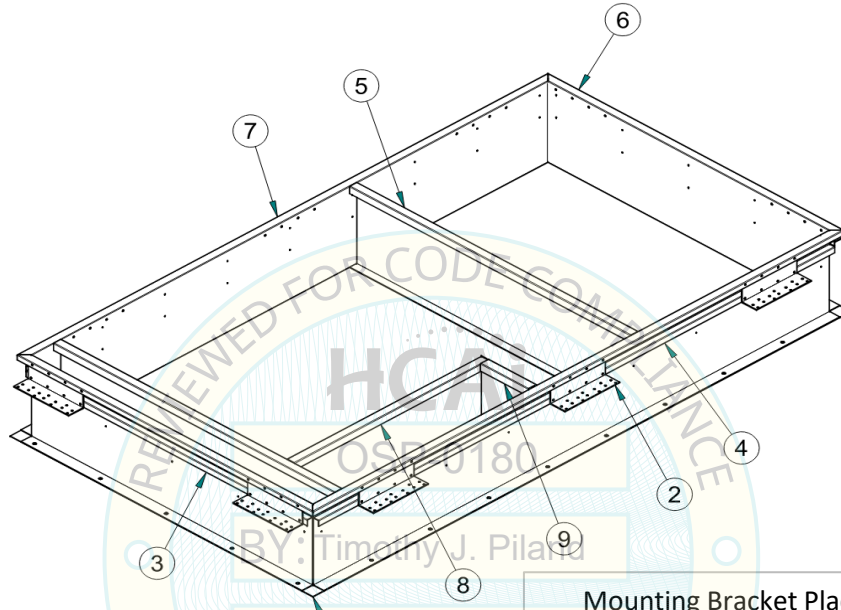


Manufacturer: AAON
Model Line: RQ, RN Series Rooftop Units
Model Number: RN-030-3-0-E61S-7C2

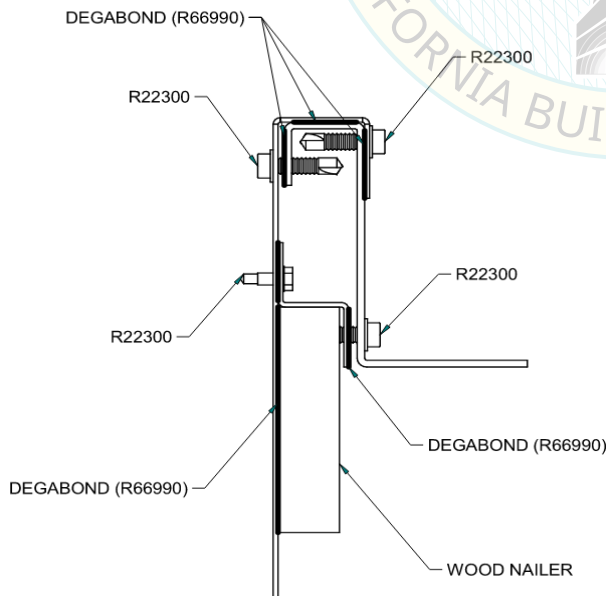
UUT 2

Serial Number: 201105-BNGT15726 / 201106-BNGT-17104

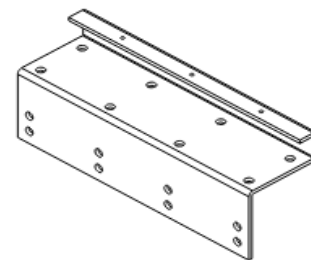
Test Mounting Details: (cont.)



Mounting Bracket Placement
(total qty: 10)



Mounting Bracket Attachment
(1/4" x 1" screws typ.)



Mounting Bracket
(10ga galv. carbon steel)

UNIT UNDER TEST (UUT) SUMMARY SHEET

1901025-CR-001-R1



| | |
|--|--------------|
| Manufacturer: AAON | UUT 3 |
| Model Line: RQ, RN Series Rooftop Units | |
| Model Number: RQ-006-3-V-0W9N-FJM | |
| Serial Number: 201105-AYWF00079 | |

Product Construction Summary:
2" foam injected galvanized steel panel construction.

Options/Subcomponent Summary:
Unit Configuration: Chilled Water Coil; Refrigerant Style: Air Handling Unit; Heating Type: AAON Copper Tube Aluminum Fin Hot Water Coil; Controls: Jace Controls; Fans: Multiwing 16" Direct Drive Axial Flow Power Exhaust fan w/ Genteq 1/2hp motor, ACME 19" Direct Drive Backwards Curved Plenum Supply w/ AO Smith 1hp motor. Coil: AAON Copper Tube Aluminum Fin Hot Water Coil; Condenser: Packless Coaxial; Additional Components: 4" Pleated Filters, Balancing Valves, Water Flow Switch, Head Pressure Control, Economizer, 460V

| UUT Properties | | | | | | |
|----------------------------|----------------|-------|--------|-------------------------------|-----------|----------|
| Weight (lbs.) ¹ | Dimension (in) | | | Lowest Natural Frequency (Hz) | | |
| | Depth | Width | Height | Front-Back | Side-Side | Vertical |
| 1,360 | 82.0 | 44.0 | 45.0 | 15.6 | 18.2 | >33 |

| 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 2022 | ICC-ES AC156 | 2.5 | 1.0 | 1.5 | 4.00 | 3.00 | 1.68 | 0.67 | |
| | | 2.5 | 0.0 | | | | | | |

Test Mounting Details: (Test Report: EL: 9730)



UUT3 was base mounted - rigid to supplemental base frame using thirty-two (32) 1" long #12 self-tapping screws, ten (10) down each side and six (6) across the ends.

¹Weight shown includes unit and supplemental base frame. UUT weight 960 lbs.
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

1901025-CR-001-R1



| | |
|--|--------------|
| Manufacturer: AAON | UUT 4 |
| Model Line: RQ, RN Series Rooftop Units | |
| Model Number: RN-030-3-0-0W9M-DJM Serial Number: N/A | |

Product Construction Summary:
2" foam injected galvanized steel panel construction. 37" galvanized steel final filter curb.

Options/Subcomponent Summary:
Unit Configuration: Chilled Water Coil; Refrigerant Style: Air Handling Unit; Heating Type: Hot Water/Steam Distributing Coil; Coils: AAON Copper Tube Aluminum Fin; Controls: Micro Control Systems; Fans: ACME 22" Backward Curved Plenum Power Exhaust Fan w/ Baldor w/ 10hp motor, ACME 27" Direct Drive Backwards Curved Plenum Supply fan w/ Baldor 20hp motor. Additional Components: AAONAIRE Energy Recovery Wheel, 4" Pleated Filters, Balancing Valves, Water Flow Switch, Brazed plate Condenser, Head Pressure Control, Economizer, 460V

| <i>UUT Properties</i> | | | | | | |
|----------------------------|----------------|-------|--------|-------------------------------|-----------|----------|
| Weight (lbs.) ¹ | Dimension (in) | | | Lowest Natural Frequency (Hz) | | |
| | Depth | Width | Height | Front-Back | Side-Side | Vertical |
| 3,062 | 157.0 | 64.0 | 60.0 | 15.2 | 14.3 | 13.1 |

| <i>UUT Highest Passed Seismic Run Information</i> | | | | | | | | | |
|---|---------------|---------------------|-----|----------------|------------------------|------------------------|------------------------|------------------------|--|
| 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 2022 | ICC-ES AC156 | 2.5 | 1.0 | 1.5 | 4.00 | 3.00 | 1.68 | 0.67 | |
| | | 2.5 | 0.0 | | | | | | |

Test Mounting Details: (Test Report: EL: 9730)



UUT4 was base mounted - rigid to curb using standard manufacturer provided brackets (see next page). Curb mounted to supplemental base using forty-one (41) 3/8"-11 bolts with nuts, flat, and lock washers.

¹Weight shown includes unit, curb and supplemental base frame, UUT 2,236 lbs
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

1901025-CR-001-R1

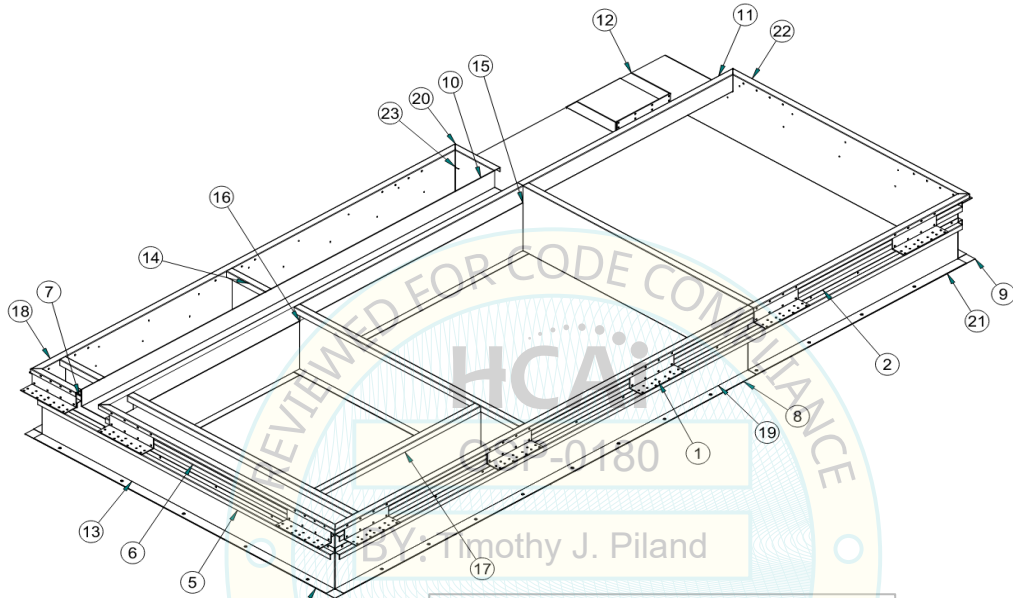


Manufacturer: AAON
Model Line: RQ, RN Series Rooftop Units
Model Number: RN-030-3-0-0W9M-DJM

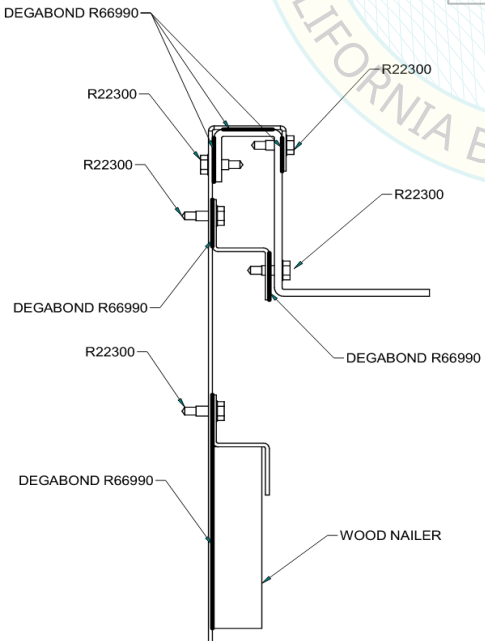
Serial Number: N/A

UUT 4

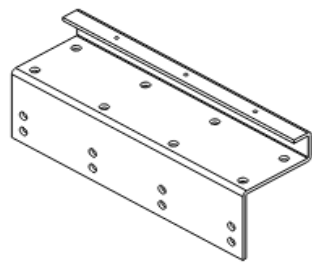
Test Mounting Details: (cont.)



Mounting Bracket Placement
(total qty: 16)



Mounting Bracket Attachment
(1/4" x 1" screws typ.)



Mounting Bracket
(10ga galv. carbon steel)

UNIT UNDER TEST (UUT) SUMMARY SHEET



1901025-CR-001-R1

| | |
|---|--------------|
| Manufacturer: AAON | UUT 5 |
| Model Line: RQ, RN Series Rooftop Units | |
| Model Number: RQ-006-2-V-E61E-14A Serial Number: 201105-AYEF00384 | |

Product Construction Summary:
2" foam injected galvanized steel panel construction. 35.5" galvanized steel final filter curb.

Options/Subcomponent Summary:
Unit Configuration: Air Source Heat Pump; Refrigerant Style: Copeland High Efficiency R-410A Variable Capacity Scroll Compressor; Heating Type: Tutco Electric Heat; Controls: Wattmaster; Fans: ACME 15" Backward Curved Plenum Return Fan w/ Emerson 2hp motor, ACME 19" Direct Drive Backwards Curved Plenum Supply fan w/ Emerson 2hp motor, Revcor 30" Condenser fan w/ SN-Tech 1/3hp motor; Coil: AAON Copper Tube Aluminum Fin Evaporative and Condenser Coil; Additional Components: AAONAIRE Energy Recovery Wheel, 2" & 4" Pleated Filters, Modulating Hot Gas Reheat, Economizer, 230V

| UUT Properties | | | | | | |
|----------------------------|----------------|-------|--------|-------------------------------|-----------|----------|
| Weight (lbs.) ¹ | Dimension (in) | | | Lowest Natural Frequency (Hz) | | |
| | Depth | Width | Height | Front-Back | Side-Side | Vertical |
| 2,300 | 120.0 | 44.0 | 45.0 | 15.0 | 17.4 | 11.5 |

| 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 2022 | ICC-ES AC156 | 2.5 | 1.0 | 1.5 | 4.00 | 3.00 | 1.68 | 0.67 | |
| | | 2.5 | 0.0 | | | | | | |

Test Mounting Details: (Test Report: EL: 9730)



UUT5 was base mounted - rigid to curb using standard manufacturer provided brackets (see next page). Curb mounted to supplemental base using twenty-four (24) 3/8"-11 bolts with nuts, flat and lock washers.

¹Weight shown includes unit, curb and supplemental base frame. UUT 1,736 lbs.
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test. Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

1901025-CR-001-R1

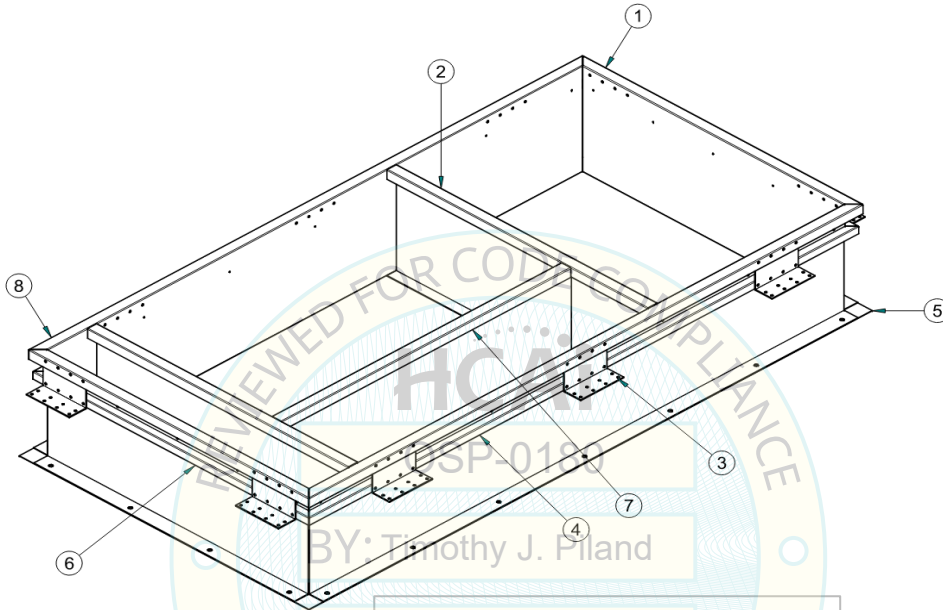


Manufacturer: AAON
Model Line: RQ, RN Series Rooftop Units
Model Number: RQ-006-2-V-E61E-14A

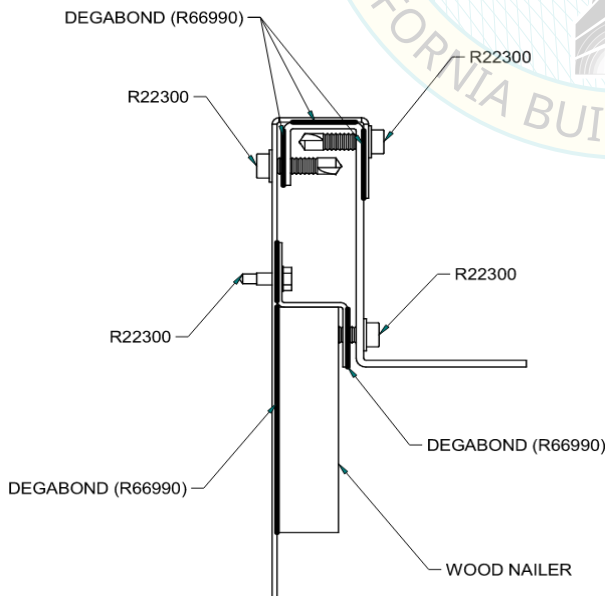
Serial Number: 201105-AYEF00384

UUT 5

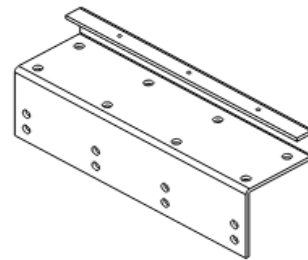
Test Mounting Details: (cont.)



Mounting Bracket Placement
(total qty: 10)



Mounting Bracket Attachment
(1/4" x 1" screws typ.)



Mounting Bracket
(10ga galv. carbon steel)

UNIT UNDER TEST (UUT) SUMMARY SHEET



1901025-CR-001-R1

| | |
|--|--------------|
| Manufacturer: AAON | UUT 6 |
| Model Line: RQ, RN Series Rooftop Units | |
| Model Number: RN-010-3-0-E79E-000 | |
| Serial Number: 201105-ANCJ03799 | |

Product Construction Summary:
2" foam injected galvanized steel panel construction. 24" galvanized steel solid bottom curb.

Options/Subcomponent Summary:
Unit Configuration: Water Source/Geothermal Heat Pump; Refrigerant Style: Copeland High Efficiency R-410A Two-Step Compressor; Heating Type: No Heating; Controls: Wattmaster; Fans: Multiwing 12"x9" Forward Curved Plenum Power Exhaust Fan w/ US Motors 3hp motor, ACME 15" Direct Drive Backwards Curved Plenum Supply fan w/ US Motors 1hp motor; Additional Components: Economizer w/ Power Exhaust, 2" & 4" Pleated Filters, Balancing Valves, Water Flow Switch, Head Pressure Control, Economizer, 460V

| UUT Properties | | | | | | |
|----------------------------|----------------|-------|--------|-------------------------------|-----------|----------|
| Weight (lbs.) ¹ | Dimension (in) | | | Lowest Natural Frequency (Hz) | | |
| | Depth | Width | Height | Front-Back | Side-Side | Vertical |
| 2,125 | 120.0 | 58.0 | 45.0 | 12.4 | 17.7 | 16.1 |

| 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 2022 | ICC-ES AC156 | 2.5 | 1.0 | 1.5 | 4.00 | 3.00 | 1.68 | 0.67 | |
| | | 2.5 | 0.0 | | | | | | |

Test Mounting Details: (Test Report: EL: 9730)



UUT6 was base mounted - rigid to curb using standard manufacturer provided brackets (see next page). Curb mounted to table using twenty-four (24) 3/8"-11 bolts with nuts, flat and lock washers.

¹Weight shown includes unit, curb and supplemental base frame. UUT 1,422 lbs.
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

1901025-CR-001-R1

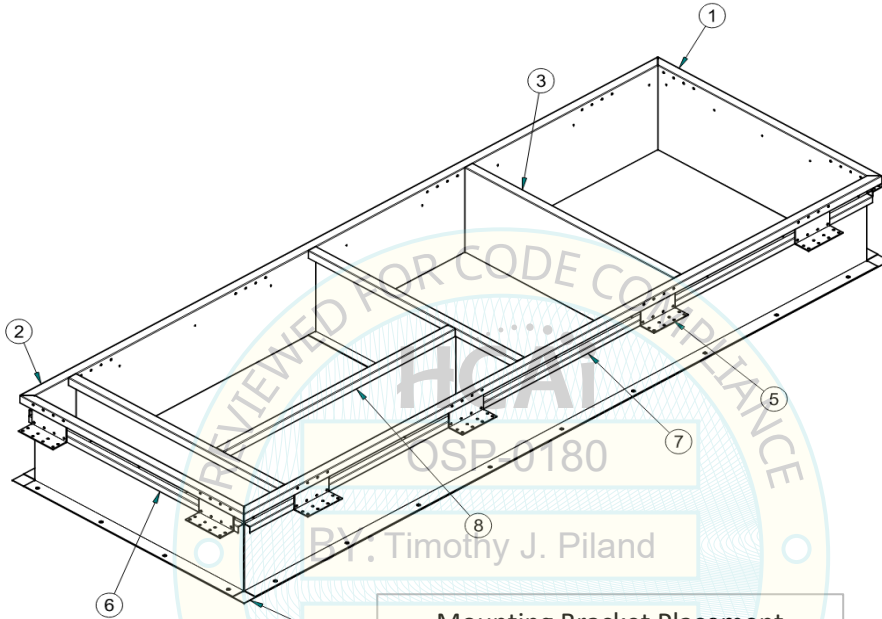


Manufacturer: AAON
Model Line: RQ, RN Series Rooftop Units
Model Number: RN-010-3-0-E79E-000

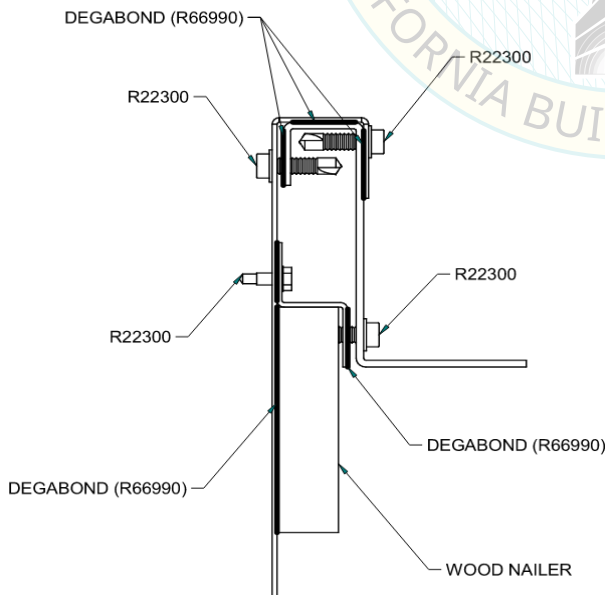
Serial Number: 201105-ANCJ03799

UUT 6

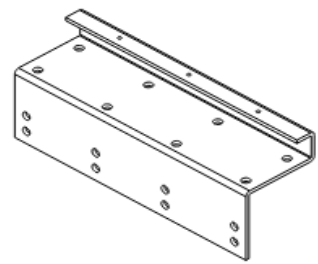
Test Mounting Details: (cont.)



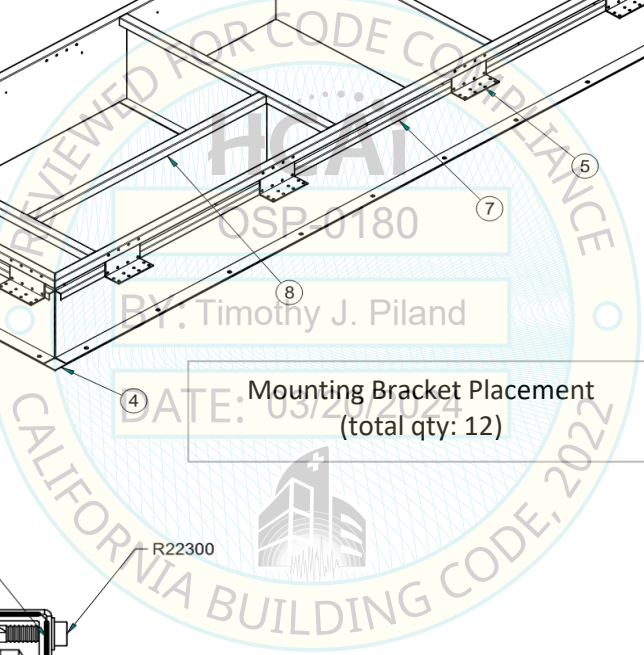
Mounting Bracket Placement
(total qty: 12)



Mounting Bracket Attachment
(1/4" x 1" screws typ.)



Mounting Bracket
(10ga galv. carbon steel)



UNIT UNDER TEST (UUT) SUMMARY SHEET



1901025-CR-001-R1

| | |
|--|--------------|
| Manufacturer: AAON | UUT 7 |
| Model Line: RQ, RN Series Rooftop Units | |
| Model Number: RQ-002-3-V-GA12-000 | |
| Serial Number: 201105-AYCB00567 | |

Product Construction Summary:
2" foam injected galvanized steel panel construction.

Options/Subcomponent Summary:
Unit Configuration: Air Cooled Delphi Microchannel Aluminum Condenser Coil & AAON Copper Tube Aluminum Fin Std. Evaporative Coil; Refrigerant Style: Copeland High Efficiency R-410A Two-Step Compressor; Heating Type: No Heating; Controls: Wattmaster Controls; Fans: Multiwing 16" Direct Dive Axial Flow Power Exhaust w/ Genteq 0.167 hp motor, ACME 19" Direct Drive Backwards Curved Plenum w/ SN-tech 1hp motor, Additional Components: Economizer w/ Power Exhaust, Metal Mesh Pre-Filter, 4" Pleated Filters, Economizer, 460V

| UUT Properties | | | | | | |
|----------------------------|----------------|-------|--------|-------------------------------|-----------|----------|
| Weight (lbs.) ¹ | Dimension (in) | | | Lowest Natural Frequency (Hz) | | |
| | Depth | Width | Height | Front-Back | Side-Side | Vertical |
| 1,250 | 120.0 | 44.0 | 45.0 | 14.7 | 17.7 | 24.2 |

| 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 2022 | ICC-ES AC156 | 2.5 | 1.0 | 1.5 | 4.00 | 3.00 | 1.68 | 0.67 | |
| | | 2.5 | 0.0 | | | | | | |

Test Mounting Details: (Test Report: EL: 9730)



UUT7 was base mounted - rigid to supplemental base frame using thirty-two (32) 1" long #12 self-tapping screws, ten (10) down each side and six (6) across the ends.

¹Weight shown includes unit and supplemental base frame. UUT 785 lbs.
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET



1901025-CR-001-R1

| | |
|--|--------------|
| Manufacturer: AAON | UUT 8 |
| Model Line: RQ, RN Series Rooftop Units | |
| Model Number: RN-030-2-0-EB19-19A | |
| Serial Number: 201105-BNET04841 | |

Product Construction Summary:
2" foam injected galvanized steel panel construction.

Options/Subcomponent Summary:
Unit Configuration: Air cooled Delphi Aluminum Microchannel Condenser & AAON Copper Tube Aluminum Fin Evaporative Coil; Refrigerant Style: Copeland R-410A Variable Capacity Scroll Compressor; Heating Type: Tutco Electric Heat; Controls: Jace Controls; Fans: ACME 22" Backward Curved Plenum Power Exhaust w/ Marathon 10hp motor, ACME 24" Direct Drive Backwards Curved Plenum Supply fan w/ Marathon 10hp motor, Revcor 30" Condenser fans w/ Genteq & SN-Tech 1hp motors; Additional Components: Metal Mesh Pre-filter, 4" Pleated Filters, Economizer, 230V

| UUT Properties | | | | | | |
|-----------------------|----------------|-------|--------|-------------------------------|-----------|----------|
| Weight (lbs.) | Dimension (in) | | | Lowest Natural Frequency (Hz) | | |
| | Depth | Width | Height | Front-Back | Side-Side | Vertical |
| 3,530 | 110.0 | 64.0 | 60.0 | 9.1 | 13.0 | 32.9 |

| 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 2022 | ICC-ES AC156 | 2.5 | 1.0 | 1.5 | 4.00 | 3.00 | 1.68 | 0.67 | |
| | | 2.5 | 0.0 | | | | | | |

Test Mounting Details: (Test Report: EL: 9730)



UUT8 was base mounted - rigid to supplemental base frame using twelve (12) #12 self-tapping screws and four (4) 5/16"-17 bolts with nuts, flat and lock washers on both sides and six (6) #12 self-tapping screws across each end.

¹Weight shown includes unit and supplemental base frame. UUT 3,030 lbs.
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET



1901025-CR-001-R1

| | |
|--|--------------|
| Manufacturer: AAON | UUT 9 |
| Model Line: RQ, RN Series Rooftop Units | |
| Model Number: RN-070-3-0-0W9M-DJM | |
| Serial Number: 2011-0112-009 | |

Product Construction Summary:
2" foam injected galvanized steel panel construction. Steam Heat.

Options/Subcomponent Summary:
Unit Configuration: Air handling unit, Chilled Water; Refrigerant Style: Copeland R-410A Variable Capacity Scroll Compressor (ZP and ZPD); Coils: AAON 6 row (chilled water) and 2 row (steam) tube and fin; Heating Type: Tutco Electric Heat; Controls: Wattmaster Controls; Fans: 20 HP Baldor fan motor; 30" backward curved ACME Plenum fans; Additional Components: Yaskawa V1000 VFD and Z1000 VFD, SWEP DP300x90 and Alfa Laval ACH230-106 Condenser, 460V

UUT Properties

| Weight (lbs.) | Dimension (in) | | | Lowest Natural Frequency (Hz) | | |
|---------------|----------------|-------|--------|-------------------------------|-----------|----------|
| | Depth | Width | Height | Front-Back | Side-Side | Vertical |
| 9,291 | 203.5 | 99.8 | 63.8 | 13.5 | 10.3 | 14.6 |

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 2022 | ICC-ES AC156 | 2.5 | 1.0 | 1.5 | 4.00 | 3.00 | 1.68 | 0.67 |
| | | 2.5 | 0.0 | | | | | |

Test Mounting Details: (Test Report: 2011-0112-TR-001, Rev. 0)



UUT9 was base mounted - rigid to supplemental base frame using fifty (50) 5/16" hex head bolts.
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET



1901025-CR-001-R1

| | |
|--|---------------|
| Manufacturer: AAON | UUT 10 |
| Model Line: RQ, RN Series Rooftop Units | |
| Model Number: RN-070-3-0-EQ19-7C2 Serial Number: 2011-0112-010 | |

Product Construction Summary:
2" foam injected galvanized steel panel construction. 24" galvanized steel. Gas Heat.

Options/Subcomponent Summary:
Unit Configuration: Air Cooled Condenser, 6 Row Evaporator Coil and Return Air Bypass; Refrigerant Style: Copeland R-410A Variable Capacity Scroll Compressor (ZP and ZPD); Coils: AAON 6 row and 2 row tube and fin; Heating Type: 1080MBTU AAON Gas Heat; Controls: Wattmaster Controls; Fans: 20 HP Baldor fan motor; 10 HP Baldor fan motor; ¾ HP AO Smith fan motor; 30" backward curved ACME Plenum fans; Additional Components: Yaskawa V1000 VFD, 460V

| UUT Properties | | | | | | |
|----------------------------|----------------|-------|--------|-------------------------------|-----------|----------|
| Weight (lbs.) ¹ | Dimension (in) | | | Lowest Natural Frequency (Hz) | | |
| | Depth | Width | Height | Front-Back | Side-Side | Vertical |
| 9,533 | 203.8 | 100.3 | 94.3 | 13.5 | 10.3 | 14.6 |

| 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 2022 | ICC-ES AC156 | 2.5 | 1.0 | 1.5 | 4.00 | 3.00 | 1.68 | 0.67 | |
| | | 2.5 | 0.0 | | | | | | |

Test Mounting Details: (Test Report: 2011-0112-TR-001, Rev. 0)



UUT10 was base mounted - rigid to curb using standard manufacturer provided brackets (see next page). Curb mounted to supplemental base frame using fifty (50) 5/16" hex head bolts. Weight shown includes unit and supplemental base frame.
¹Weight includes curb. Curb weight: 1,665 lbs, UUT10 weight (dry): 7,868 lbs.
 Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.
 Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

1901025-CR-001-R1

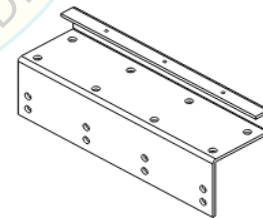
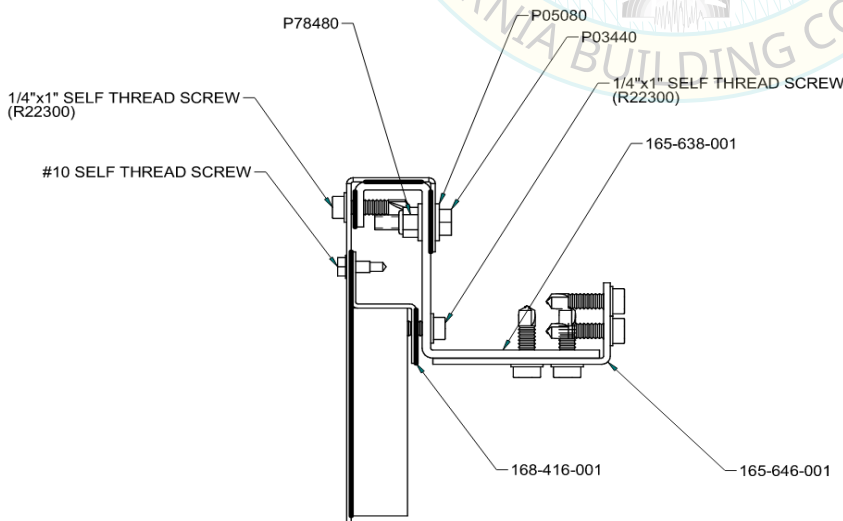
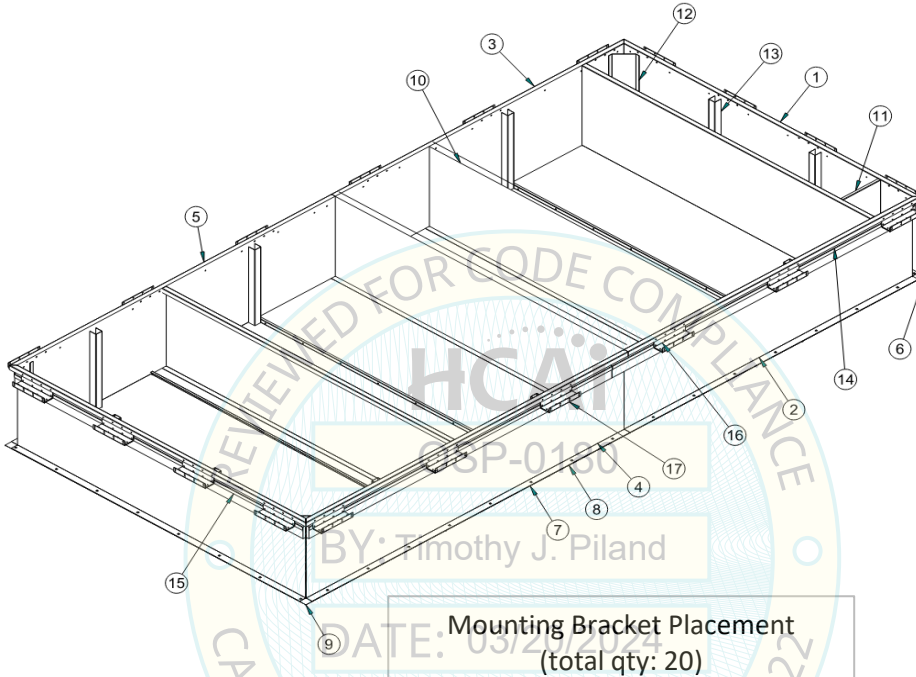


Manufacturer: AAON
Model Line: RQ, RN Series Rooftop Units
Model Number: RN-070-3-0-EQ19-7C2

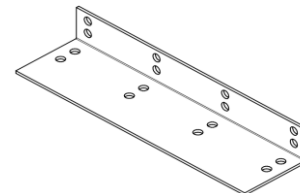
UUT 10

Serial Number: 2011-0112-010

Test Mounting Details: (cont.)



Mounting Bracket
(10ga galv. carbon steel)



Angle Bracket
(12ga galv. carbon steel)

Mounting Bracket Attachment
(1/4" x 1" screws typ.)

UNIT UNDER TEST (UUT) SUMMARY SHEET

1901025-CR-001-R1



| | |
|--|---------------|
| Manufacturer: AAON | UUT 11 |
| Model Line: RQ, RN Series Rooftop Units | |
| Model Number: RN-030-3-0-E61T-7C2 | |
| Serial Number: 2011-0112-011 | |

Product Construction Summary:
2" foam injected galvanized steel panel construction. 38" galvanized steel horizontal discharge curb.

Options/Subcomponent Summary:
Unit Configuration: Air Source Heat Pump; Refrigerant Style: Copeland R-410A Variable Capacity Scroll Compressor; Heating Type: LP Gas Stainless Steel, Modulating Hot Gas Reheat; Controls: Wattmaster; Fans: Multiwing 22" Direct Drive Axial Flow Power Return Fan w/ Emerson 5hp motor, ACME 22" Direct Drive Backwards Curved Plenum Supply fan w/ Emerson 7.5 hp motor, Revcor 30" Condenser Fan w/ AO Smith, Emerson & Baldor 1hp motors (All Aluminum Blade); Coil: AAON Copper Tube Aluminum Fin Evaporative and Condenser Coils; Additional Components: 2" & 4" Pleated Filters, Economizer, 460V

| UUT Properties | | | | | | |
|----------------------------|----------------|-------|--------|-------------------------------|-----------|----------|
| Weight (lbs.) ¹ | Dimension (in) | | | Lowest Natural Frequency (Hz) | | |
| | Depth | Width | Height | Front-Back | Side-Side | Vertical |
| 4,571 | 146.0 | 101.1 | 92.9 | 9.5 | 7.2 | 8.5 |

| 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 2022 | ICC-ES AC156 | 2.5 | 1.0 | 1.5 | 4.00 | 3.00 | 1.68 | 0.67 | |
| | | 2.5 | 0.0 | | | | | | |

Test Mounting Details: (Test Report: 2011-0112-TR-001, Rev. 0)



UUT1 was base mounted - rigid curb using standard manufacturer provided brackets (see next page). Curb mounted to supplemental base frame using thirty-four (34) 5/16" hex head bolts.

¹Weight shown is the unit weight only.

Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.

Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

1901025-CR-001-R1

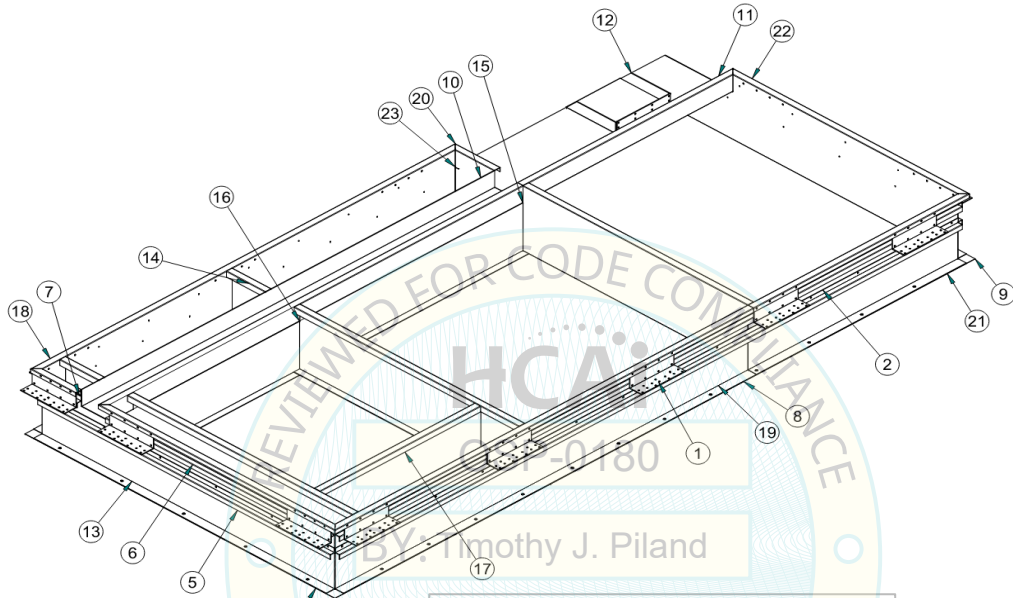


Manufacturer: AAON
Model Line: RQ, RN Series Rooftop Units
Model Number: RN-030-3-0-E61T-7C2

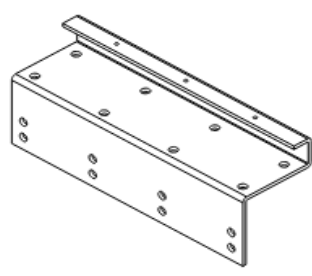
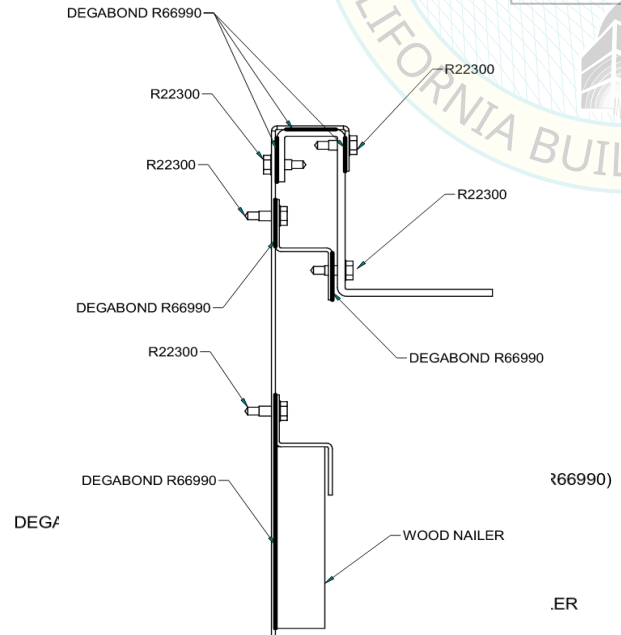
UUT 11

Serial Number: 2011-0112-011

Test Mounting Details: (cont.)



Mounting Bracket Placement
(total qty: 16)



Mounting Bracket
(10ga galv. carbon steel)

Mounting Bracket Attachment
(1/4" x 1" screws typ.)