

High Efficiency Packaged Rooftop Units

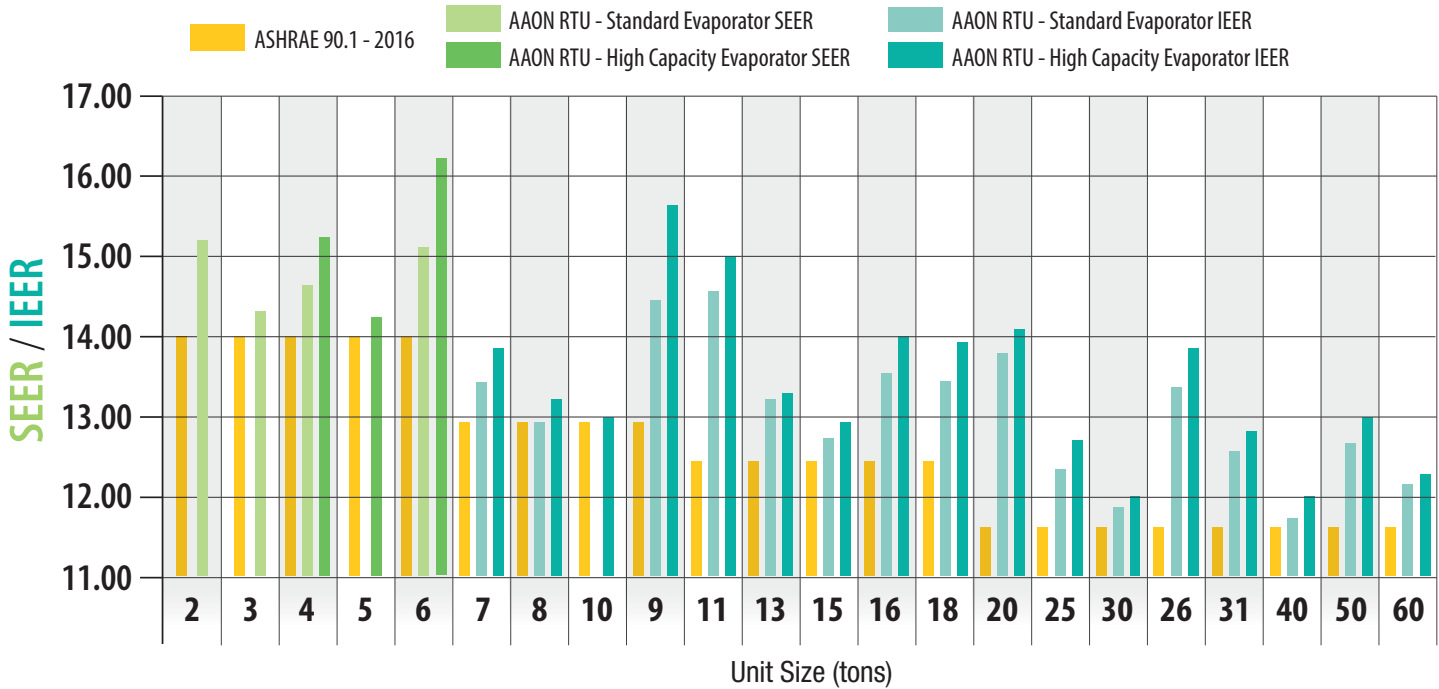
Up to 15.7 IEER



AHRI Certified Performance



High Efficiency Staged Compressor Packaged Rooftop Unit Efficiency



AHRI Certified Packaged Rooftop Unit Performance High Efficiency with Staged Compressors

| | Unit Size | Compressors | Unit Capacity Stages | ASHRAE 90.1 - 2016 | AAON RTU - Standard Evaporator | AAON RTU - 6 Row High Capacity Evaporator |
|--------|-----------|-------------|----------------------|--------------------|--------------------------------|---|
| RQ-002 | 2 | 1 | 1 | 14.00 SEER | 15.20 SEER | |
| RQ-003 | 3 | 1 | 1 | 14.00 SEER | 14.30 SEER | |
| RQ-004 | 4 | 1 | 1 | 14.00 SEER | 14.60 SEER | 15.30 SEER |
| RQ-005 | 5 | 1 | 1 | 14.00 SEER | | 14.30 SEER |
| RN-006 | 6 | 1 | 1 | 14.00 SEER | 15.10 SEER | 16.30 SEER |
| RN-007 | 7 | 1 | 1 | 12.90 IEER | 13.40 IEER | 13.80 IEER |
| RN-008 | 8 | 1 | 1 | 12.90 IEER | 12.90 IEER | 13.30 IEER |
| RN-010 | 10 | 1 | 1 | 12.90 IEER | | 13.00 IEER |
| RN-009 | 9 | 2 | 2 | 12.90 IEER | 14.40 IEER | 15.70 IEER |
| RN-011 | 11 | 2 | 2 | 12.40 IEER | 14.60 IEER | 15.00 IEER |
| RN-013 | 13 | 2 | 2 | 12.40 IEER | 13.30 IEER | 13.40 IEER |
| RN-015 | 15 | 2 | 2 | 12.40 IEER | 12.70 IEER | 12.90 IEER |
| RN-016 | 16 | 2 | 2 | 12.40 IEER | 13.60 IEER | 14.00 IEER |
| RN-018 | 18 | 2 | 2 | 12.40 IEER | 13.50 IEER | 13.90 IEER |
| RN-020 | 20 | 2 | 2 | 12.40 IEER | 13.80 IEER | 14.10 IEER |
| RN-025 | 25 | 2 | 2 | 11.60 IEER | 12.40 IEER | 12.70 IEER |
| RN-030 | 30 | 2 | 2 | 11.60 IEER | 11.80 IEER | 12.00 IEER |
| RN-026 | 26 | 4 | 4 | 11.60 IEER | 13.30 IEER | 13.80 IEER |
| RN-031 | 31 | 4 | 4 | 11.60 IEER | 12.60 IEER | 12.80 IEER |
| RN-040 | 40 | 4 | 4 | 11.60 IEER | 11.70 IEER | 12.00 IEER |
| RN-050 | 50 | 4 | 4 | 11.60 IEER | 12.70 IEER | 13.00 IEER |
| RN-060 | 60 | 4 | 4 | 11.60 IEER | 12.10 IEER | 12.30 IEER |

460V/3ph Stage Compressor Units Without Heat

Packaged Rooftop Unit Compressor Technologies

On/Off Scroll - Low Cost

Standard on/off scroll compressors provide high full load efficiencies (EER), but cannot provide precise control or ultra-high part load efficiencies (SEER/IEER) with limited capacity staging.

High Efficiency Packaged Rooftop Unit Requirements

- High Efficiency Cooling (SEER/IEER)
- Simple System Control
- Easy to Service and Maintain
- Cabinet with High R-Value Insulation
- Low Air Leakage Rigid Cabinet
- Superior Cabinet Door Gasket
- AMCA Certified Low Leakage Dampers



- All AAON rooftop units include access doors with stainless steel hinges and quarter turn lockable handles.

High Efficiency Staged Compressor Packaged Rooftop Unit

Features and Benefits

Operational and Energy Savings

- Staged scroll compressors provide unit capacity control
 - Single stage capacity control for a single compressor unit.
 - Two stage capacity control for a dual compressor unit.
 - Four stage capacity control for a four compressor unit.
- Variable speed condenser fans reduce energy use during reduced capacity or ambient conditions, which also results in reduced radiated sound.
- Staged compressors allow the use of standard thermal expansion valves.
- Four stages of heating control to match the application requirements.
- AAON high efficiency staged scroll compressor systems do not require an expensive complicated control system.
- AAON Touchscreen Controller is capable of controlling the features and options of the job application.

Energy Saving Construction

- Cabinet construction consists of two inch rigid polyurethane foam panels with G90 galvanized steel on both sides and a closed cell polyurethane foam interior core. The inner wall protects the insulation from moisture damage, prevents microbial growth, and is easy to clean.
- Two inch polyurethane foam insulated panels have a thermal resistance of R-value of 13 or greater, which exceeds the R-value of a cabinet with four inch thick fiberglass construction. They also make the cabinet more rigid and resistant to damage and provide increased sound damping.
- AMCA certified and labeled AAON low leakage economizer dampers meet the California Title 24 damper air leakage requirement. Gear driven economizer eliminates the excess play and bind that occurs with linkage type economizers.

Cost Saving Serviceability

- Direct drive backward curved plenum fans are energy efficient with no belt loses and no belt maintenance.
- The same serviceability features available on all AAON equipment, including lockable service access doors, color-coded wiring and wiring diagram, and labeled electrical and refrigeration components.

Touchscreen Controller

Mounted in the Space or Office/ Mechanical Room
(Space Temp and RH Sensor)



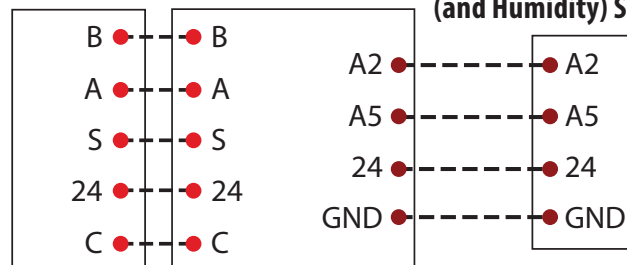
Unit Control Board
Within the AAON Rooftop Unit



Remote Sensor

Mounted in the Space (Optional Space Temp)
(Optional Space Temp and RH)

Touchscreen Controller Unit Control Board Optional Remote Space Temperature (and Humidity) Sensor



B = Communication
A = Communication
S = Shield for Communication
24 = 24 VDC
C = Common

A2 = Remote Space Temp.
A5 = Remote Space RH
(Only Systems with Dehumidification)
24 = 24 VDC
GND = Ground

18 GA/5 Stranded Wire,
Max 2,500 ft

AAON Staged Compressor Rooftop Unit

| | AHRI Cooling Capacity at 95°F | | Heating Capacity | Weight (lbs.) | Width | Height | Length |
|---------------|-------------------------------|---------------------|---|---------------|-------|--------|--------|
| | Standard | 6 Row High Capacity | | | | | |
| RQ-002 | 28.0 MBH | | 60-160 MBH Gas, 10-40 kW Electric | 763 | 44 | 51 | 82 |
| RQ-003 | 34.2 MBH | | | 757 | | | |
| RQ-004 | 47.5 MBH | 50.0 MBH | | 757 | | | |
| RQ-005 | | 62.0 MBH | | 809 | | | |
| RN-006 | 58.0 MBH | 64.5 MBH | 90-210 MBH Gas, 10-60 kW Electric | 986 | 79 | 44 | 82 |
| RN-007 | 75.0 MBH | 79.0 MBH | | 1,012 | | | |
| RN-008 | 91.0 MBH | 97.0 MBH | | 1,052 | | | |
| RN-010 | | 117.0 MBH | | 1,210 | | | |
| RN-009 | 96.0 MBH | 106.0 MBH | 195-390 MBH Gas, 20-80 kW Electric | 1,166 | 96 | 50 | 88 |
| RN-011 | 122.0 MBH | 128.0 MBH | | 1,226 | | | |
| RN-013 | 152.0 MBH | 156.0 MBH | | 1,667 | | | |
| RN-015 | 176.0 MBH | 182.0 MBH | | 1,709 | | | |
| RN-016 | 184.0 MBH | 194.0 MBH | 270-540 MBH Gas, 20-120 kW Electric | 2,262 | 101 | 60 | 110 |
| RN-018 | 206.0 MBH | 212.0 MBH | | 2,248 | | | |
| RN-020 | 230.0 MBH | 238.0 MBH | | 2,525 | | | |
| RN-025 | 282.0 MBH | 290.0 MBH | | 2,536 | | | |
| RN-030 | 312.0 MBH | 322.0 MBH | | 2,551 | | | |
| RN-026 | 294.0 MBH | 312.0 MBH | 540-1080 MBH Gas, 40-240 kW Electric | 4,547 | 100 | 102 | 155 |
| RN-031 | 348.0 MBH | 430.0 MBH | | 4,743 | | | |
| RN-040 | 420.0 MBH | 430.0 MBH | | 4,970 | | | |
| RN-050 | 555.0 MBH | 570.0 MBH | | 5,305 | | | |
| RN-060 | 615.0 MBH | 630.0 MBH | | 5,594 | | | |

*Weight and dimensions vary depending on options selected. All dimensions are in inches



2425 S. Yukon Ave. • Tulsa, OK 74107

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