



SUBMITTAL

Project

Tom James Fitout

Date

Friday, April 14, 2023

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Project: Tom James Fitout
Prepared By:

06/08/2023
02:12PM

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RTU-1-2

**Tag Cover Sheet
Unit Report
Certified Drawing
Performance Report
Unit Feature Sheet
Spec Sheet**

Unit Report For RTU-1-2

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Unit Parameters

Unit Model:..... **48FCEA06A2A5-0A0A0**
 Unit Size:..... **06 (5 Tons)**
 Volts-Phase-Hertz:..... **208-3-60**
 Heating Type:..... **Gas**
 Heat Control:..... **Medium Heat**
 Duct Cfg:..... **Vertical Supply / Vertical Return**
 DX Options:..... **Standard One Stage Cooling Models**

Dimensions (ft. in.) & Weight (lb.) ***

Unit Length:..... **6' 2.375"**
 Unit Width:..... **3' 10.625"**
 Unit Height:..... **2' 9.375"**
Total Operating Weight:.....574 lb

*** Weights and Dimensions are approximate. Weight does not include unit packaging. Approximate dimensions are provided primarily for shipping purposes. For exact dimensions and weights, refer to appropriate product data catalog.

Lines and Filters

Gas Line Size:..... **1/2**
 Condensate Drain Line Size:..... **3/4**
 Return Air Filter Type:..... **Throwaway**
 Return Air Filter Quantity:..... **2**
 Return Air Filter Size:..... **16 x 25 x 2**

Selection includes construction throwaway filter into the base fan curve.

Unit Configuration

Direct Drive - EcoBlue - Medium Static
 Al/Cu - Al/Cu
 Base Electromechanical Controls
 Standard Packaging

Warranty Information

1-Year parts(std.)
 5-Year compressor parts(std.)
 10-Year heat exchanger - Aluminized(std.)

No optional warranties were selected.

NOTE: Please see Warranty Catalog 500-089 for explanation of policies and ordering methods.

Ordering Information

| Part Number | Description | Quantity |
|--------------------|----------------------------------------|----------|
| 48FCEA06A2A5-0A0A0 | Rooftop Unit | 1 |
| | Base Unit | |
| | Direct Drive - EcoBlue - Medium Static | |
| | None | |

Certified Drawing for RTU-1-2

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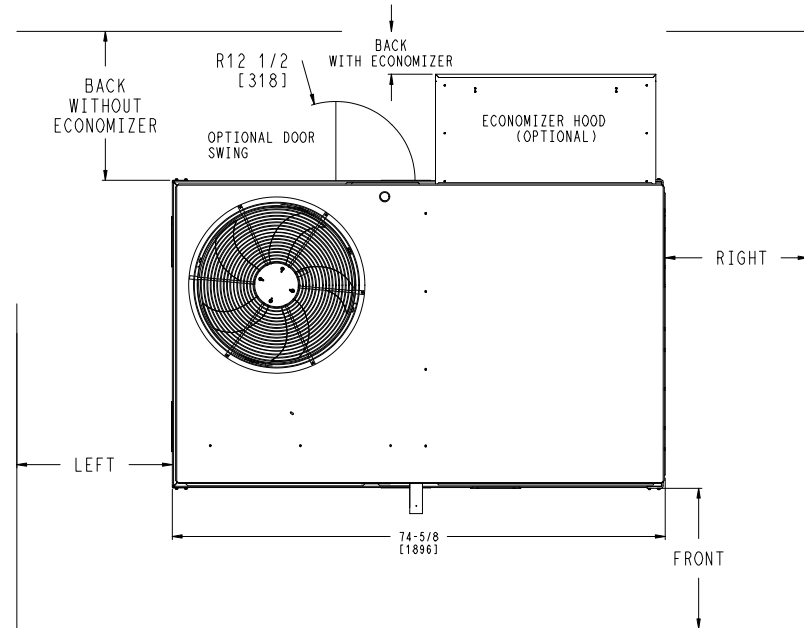
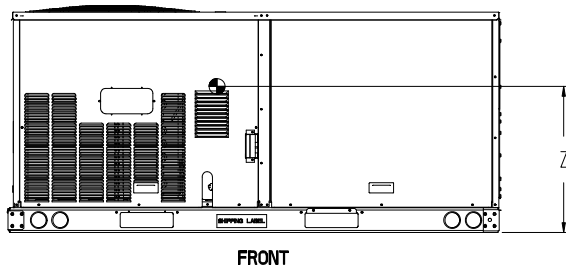
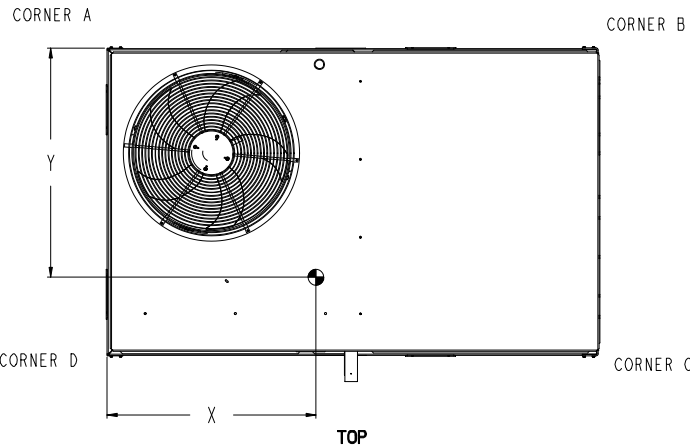
| UNIT | STD. UNIT WEIGHT * | | CORNER WEIGHT (A) | | CORNER WEIGHT (B) | | CORNER WEIGHT (C) | | CORNER WEIGHT (D) | | C.G. | | | HEIGHT |
|----------|--------------------|-----|-------------------|-----|-------------------|-----|-------------------|-----|-------------------|-----|--------------|---------------|--------------|--------|
| | LBS. | KG. | LBS. | KG. | LBS. | KG. | LBS. | KG. | LBS. | KG. | X | Y | Z | |
| 48FC**04 | 482 | 219 | 113 | 51 | 116 | 53 | 128 | 58 | 125 | 57 | 37 5/8 [956] | 24 9/16 [624] | 18 1/4 [464] | |
| 48FC**05 | 543 | 246 | 138 | 63 | 133 | 60 | 133 | 60 | 138 | 63 | 36 1/2 [927] | 23 3/8 [594] | 18 [457] | |
| 48FC**06 | 556 | 252 | 142 | 64 | 136 | 62 | 136 | 62 | 142 | 64 | 36 1/2 [927] | 23 3/8 [594] | 18 [457] | |
| 48FC**07 | 607 | 275 | 162 | 73 | 152 | 69 | 141 | 64 | 151 | 68 | 36 [914] | 22 1/2 [572] | 19 3/8 [492] | |

* STANDARD UNIT WEIGHT IS WITH LOW GAS HEAT AND WITHOUT PACKAGING.
FOR OTHER OPTIONS AND ACCESSORIES, REFER TO THE PRODUCT DATA CATALOG.

Carrier
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NOTES:

1. FOR ALL MINIMUM CLEARANCES LOCAL CODES OR JURISDICTIONS MAY PREVAIL.

| SURFACE | CLEARANCE | | OPERATING CLEARANCE |
|-------------|---------------------------------|------------------------------------|---------------------|
| | SERVICE WITH CONDUCTIVE BARRIER | SERVICE WITH NONCONDUCTIVE BARRIER | |
| FRONT | 48 [1219mm] | 36 [914mm] | 18 [457mm] |
| LEFT | 48 [1219mm] | 42 [1067mm] | 18 [457mm] |
| BACK | 48 [1219mm] | 42 [1067mm] | 18 [457mm] |
| BACK W/HOOD | 36 [914mm] | 36 [914mm] | 18 [457mm] |
| RIGHT | 36 [914mm] | 36 [914mm] | 18 [457mm] |
| TOP | 72 [1829mm] | 72 [1829mm] | 72 [1829mm] |

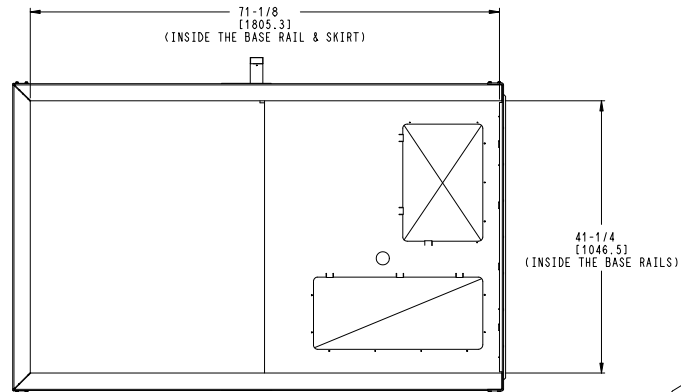
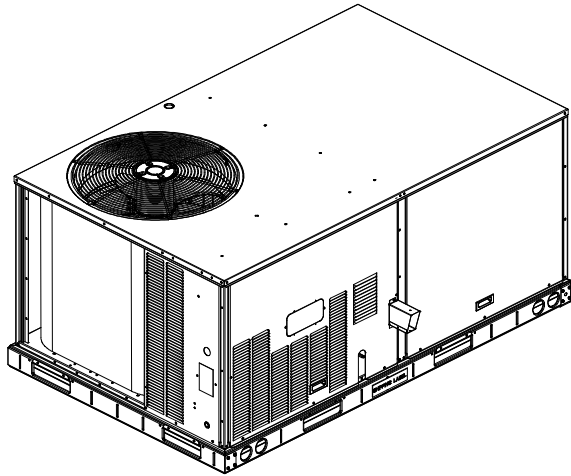
| | | | | | | |
|--------------------|--------|----------|------------|------------------------------------------------------------|------------|-----|
| ITC CLASSIFICATION | SHEET | DATE | SUPERCEDES | 48FC 04-07 SINGLE PACKAGE ELECTRICAL COOLING WITH GAS HEAT | 48TC003093 | REV |
| U.S. ECCN:NSR | 2 OF 3 | 09/07/18 | 06/22/18 | | | A |

Certified Drawing for RTU-1-2

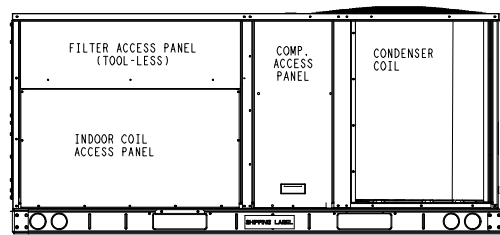
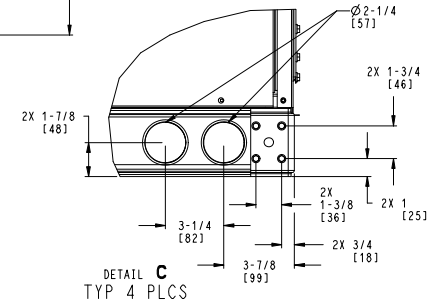
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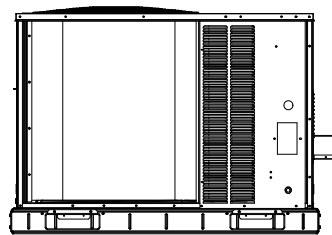
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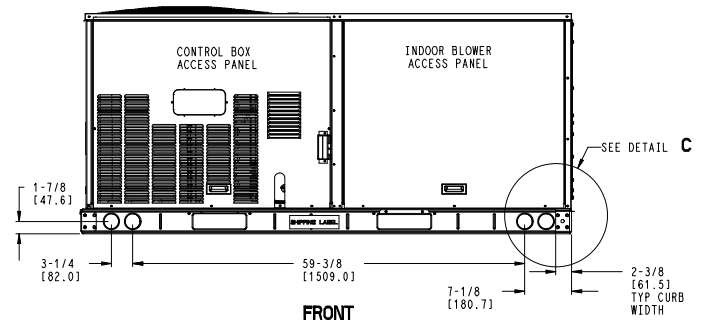
INSIDE BASERAIL DIMENSIONS
BOTTOM



BACK



LEFT



FRONT

| | | | | | | |
|--------------------|--------|----------|------------|------------------------------------------------------------|------------|-----|
| ITC CLASSIFICATION | SHEET | DATE | SUPERCEDES | 48FC 04-07 SINGLE PACKAGE ELECTRICAL COOLING WITH GAS HEAT | 48TC003093 | REV |
| U.S. ECCN: NSR | 3 OF 3 | 09/07/18 | 06/22/18 | | | A |

Performance Summary For RTU-1-2

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Part Number:48FCEA06A2A5-0A0A0

ARI SEER:.....14.00

Base Unit Dimensions

Unit Length:.....74.4 in
Unit Width:.....46.6 in
Unit Height:.....33.4 in

Operating Weight

Base Unit Weight:.....511 lb
Medium Heat:.....63 lb

Total Operating Weight:.....574 lb

Unit

Unit Voltage-Phase-Hertz:.....208-3-60
Air Discharge:.....Vertical
Fan Drive Type:.....Vane Axial
Actual Airflow:.....2000 CFM
Site Altitude:.....0 ft

Cooling Performance

Condenser Entering Air DB:.....95.0 F
Evaporator Entering Air DB:.....80.0 F
Evaporator Entering Air WB:.....67.0 F
Entering Air Enthalpy:.....31.44 BTU/lb
Evaporator Leaving Air DB:.....59.3 F
Evaporator Leaving Air WB:.....57.7 F
Evaporator Leaving Air Enthalpy:.....24.85 BTU/lb
Gross Cooling Capacity:.....59.31 MBH
Gross Sensible Capacity:.....44.73 MBH
Compressor Power Input:.....4.14 kW
Coil Bypass Factor:.....0.163

Heating Performance

Heating Airflow:.....2000 CFM
Entering Air Temp:.....70.0 F
Leaving Air Temp:.....110.7 F
Gas Heating Input Capacity:.....110.0 MBH
Gas Heating Output Capacity:.....88.0 MBH
Temperature Rise:.....40.7 F
Thermal Efficiency (%):.....80.0

Supply Fan

External Static Pressure:.....0.50 in wg
Fan RPM:.....2067
Fan Power:.....0.94 BHP

NOTE:.....Selected IFM RPM Range: 1478 - 2390

Supply Fan Motor Maximum Continuous BHP:.....1.4 HP

Supply Fan Motor Application HP:.....1.4 HP

NOTE:Motors with application horse power are specifically designed and tested for Carrier rooftop units therefore do not have a standard HP rating.

Selection includes construction throwaway filter into the base fan curve. This filter is not MERV Rated.

Electrical Data

Voltage Range:.....187 - 253
Compressor #1 RLA:.....16
Compressor #1 LRA:.....110
Indoor Fan Motor Type:.....MED

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| | |
|----------------------------------------|----------------|
| Indoor Fan Motor FLA (Total):..... | 9.2 |
| Combustion Fan Motor FLA (ea):..... | 0.48 |
| Power Supply MCA:..... | 31 |
| Power Supply MOCP (Fuse or HACR):..... | 45 |
| Disconnect Size FLA:..... | 31 |
| Disconnect Size LRA:..... | 127 |
| Electrical Convenience Outlet:..... | None |
| Outdoor Fan [Qty / FLA (ea)]:..... | 1 / 1.5 |

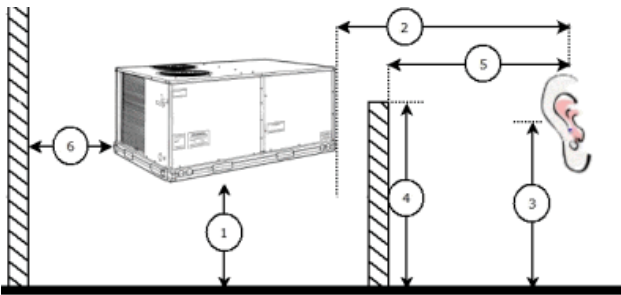
Control Panel SCCR: 5kA RMS at Rated Symmetrical Voltage

Acoustics

Sound Power Levels, db re 10E-12 Watts

| | Discharge | Inlet | Outdoor |
|------------|-----------|-------|---------|
| 63 Hz | 92.1 | 89.2 | 85.6 |
| 125 Hz | 83.3 | 79.2 | 84.7 |
| 250 Hz | 77.3 | 71.8 | 80.5 |
| 500 Hz | 73.9 | 65.9 | 76.0 |
| 1000 Hz | 70.6 | 68.1 | 72.4 |
| 2000 Hz | 68.0 | 59.5 | 68.0 |
| 4000 Hz | 64.1 | 52.7 | 62.8 |
| 8000 Hz | 60.2 | 46.9 | 59.3 |
| A-Weighted | 77.2 | 72.0 | 79.0 |

Advanced Acoustics



Advanced Acoustics Parameters

- 1. Unit height above ground:..... **30.0** ft
- 2. Horizontal distance from unit to receiver:..... **50.0** ft
- 3. Receiver height above ground:..... **5.7** ft
- 4. Height of obstruction:..... **0.0** ft
- 5. Horizontal distance from obstruction to receiver:..... **0.0** ft
- 6. Horizontal distance from unit to obstruction:..... **0.0** ft

Detailed Acoustics Information

| Octave Band Center Freq. Hz | 63 | 125 | 250 | 500 | 1k | 2k | 4k | 8k | Overall |
|-----------------------------|------|------|------|------|------|------|------|------|----------|
| A | 85.6 | 84.7 | 80.5 | 76.0 | 72.4 | 68.0 | 62.8 | 59.3 | 89.2 Lw |
| B | 59.4 | 68.6 | 71.9 | 72.8 | 72.4 | 69.2 | 63.8 | 58.2 | 78.5 LwA |
| C | 53.2 | 52.3 | 48.1 | 43.6 | 40.0 | 35.6 | 30.4 | 26.9 | 56.8 Lp |
| D | 27.0 | 36.2 | 39.5 | 40.4 | 40.0 | 36.8 | 31.4 | 25.8 | 46.1 LpA |

Performance Summary For RTU-1-2

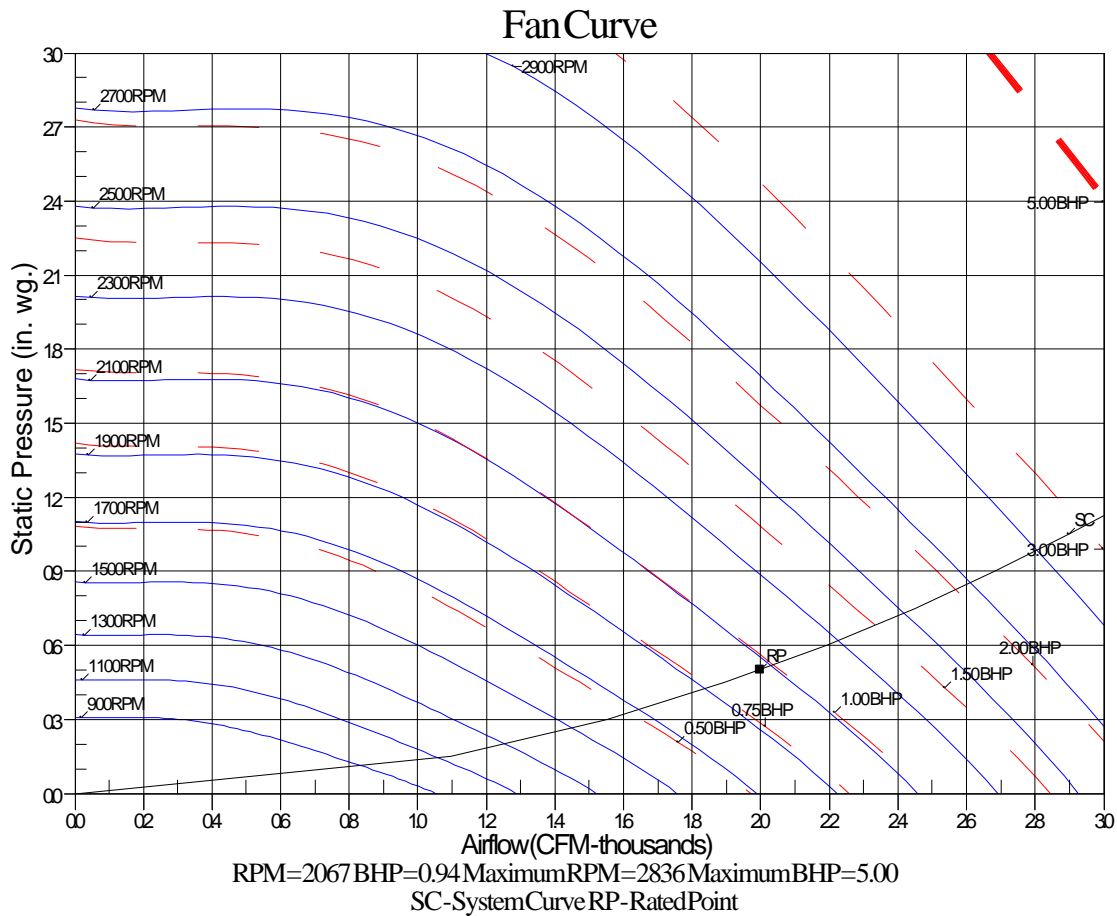
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Legend

- A Sound Power Levels at Unit's Acoustic Center, Lw
- B A-Weighted Sound Power Levels at Unit's Acoustic Center, LwA
- C Sound Pressure Levels at Specific Distance from Unit, Lp
- D A-Weighted Sound Pressure Levels at Specific Distance from Unit, LpA

Calculation methods used in this program are patterned after the ASHRAE Guide; other ASHRAE Publications and the AHRI Acoustical Standards. While a very significant effort has been made to insure the technical accuracy of this program, it is assumed that the user is knowledgeable in the art of system sound estimation and is aware of the tolerances involved in real world acoustical estimation. This program makes certain assumptions as to the dominant sound sources and sound paths which may not always be appropriate to the real system being estimated. Because of this, no assurances can be offered that this software will always generate an accurate sound prediction from user supplied input data. If in doubt about the estimation of expected sound levels in a space, an Acoustical Engineer or a person with sound prediction expertise should be consulted.



Unit Feature Sheet for RTU-1-2

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PACKAGED ROOFTOP GAS HEATING/ELECTRIC COOLING UNITS – 3, 4, 5 TON - 13.4 SEER2 and 14.0 SEER, 6 TON - 15.0 IEER



WEATHERMAKER SERIES

48FC units are single packaged gas heating, electric cooling units that are pre-wired and charged with Puron (R-410) refrigerant. The units are factory tested in both heating and cooling modes. 3-5 ton models use single stage cooling capacity control. 6 ton model uses two stage cooling capacity control.

Approved and certified by:



Use of the AHRI Certified™ Mark indicates a manufacturer's participation in the program. For verification of certification for individual products, go to www.ahriindustry.org.

STANDARD FEATURES INCLUDE:

- Puron (R-410A) HFC refrigerant
- Meets or exceeds ASHRAE 90.1 energy efficiency levels
- Scroll compressors with internal line break and overload protection
- Single-stage cooling capacity 04-06 models, Two Stage on 07 models
- SEER2's up to 13.8
- SEER's to 14.0, IEER's to 15.0
- Acutrol™ refrigerant metering system on 04-06 models, TXV on 07 size models
- Exclusive non-corrosive composite condensate pan in accordance with ASHRAE Standard 62, sloping design, side or center drain
- Standard cooling operation up to 115°F (46°C) and down to 40°F (4°C) - down to 25°F (-4°C) with winter start kit.
- Pre-painted exterior panels and primer-coated interior panels tested to 500 hours salt spray protection
- Fully insulated cabinet
- NEW Direct Drive – EcoBlue™ Technology Indoor fan system uses Vane Axial fan design and electronically commutated motor
- New Unit Control Board with intuitive quick fan speed adjustment
- Exclusive IGC solid-state control for on-board diagnostics with LED error code designation burner control logic
- Induced draft gas heat combustion design
- Redundant gas valves with up to two stages of heating
- Low pressure and high pressure switch protected.

MAINTENANCE FEATURES:

- Access panels with easy grip handles
- Innovative easy starting, no-strip screws on unit access panels
- Two-inch disposable return air filters and Tool-less filter access door
- New unit control board to facilitate simple safety circuit troubleshooting and simplified control box arrangement

INSTALLATION FEATURES:

- Thru-the-bottom power entry capability
- Single point gas and electric connections
- Full perimeter base rail with built-in rigging adapters and fork slots
- Field convertible from vertical to horizontal airflow

STANDARD WARRANTY:

- 10-year heat exchanger – 15-year stainless steel option
- 5-year compressor
- 3-year SystemVu™
- 1-year parts
- Many optional upgrades also available

OPTIONS INCLUDE BUT ARE NOT LIMITED TO:

- Intelligent SystemVu communicating controls
- RTU Open Multi-Protocol DDC Controls
- Supply and Return Air Smoke Detectors, high static motors
- Louvered condenser coil guards
- Disconnect switch and convenience outlet options
- Stainless Steel heat exchanger option
- Corrosion resistant coil coating.
- MERV-8 and 13 Return Air Filters
- Patented Humidi-MiZer® adaptive dehumidification system.
- Hinged access panels
- Integrated economizer system. Low and Ultra Low Leak versions
- Phase Monitor Protection
- Condensate Overflow Protection

For a complete list of options and accessories refer to the Product Data Catalog for this unit.

Spec Sheet for RTU-1-2

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