



SUBMITTAL

Project

RCF Office Expansion

Date

Thursday, July 7, 2022

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Project: RCF Office Expansion
Prepared By:

03/10/2023
11:13AM

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4 Ton

Project: RCF Office Expansion
Prepared By:

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4 Ton

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

RTU-02

Unit Report For 4 Ton

Project: RCF Office Expansion
Prepared By:

RTU-02

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Unit Parameters

Unit Model:.....**50FC-A05A2A5-0A0A0**
 Unit Size:.....**05 (4 Tons)**
 Volts-Phase-Hertz:.....**208-3-60**
 Heating Type:.....**Electric**
 Heat Control:.....**Single Stage Compressor Models**
 Duct Cfg:.....**Horizontal Supply / Horizontal Return**

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

Unit Length:.....**6' 2.375"**
 Unit Width:.....**3' 10.625"**
 Unit Height:.....**2' 9.375"**
Total Operating Weight:.....633 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

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. This filter is not MERV Rated.

Unit Configuration

Direct Drive - EcoBlue - Medium Static
 Al/Cu - Al/Cu
 Base Electro-mechanical controls
 Standard Packaging

Warranty Information

5-Year compressor parts (STD.)
 5-Year electric heater (STD.)
 1-Year parts (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 |
|------------------------------------|--|----------|
| 50FC-A05A2A5-0A0A0 | Rooftop Unit | 1 |
| Field Installed Accessories | | |
| CRRFCURB001A01 | 14-inch Tall Roof Curb | 1 |
| 33CS2PP2S-03 | Thermostat | 1 |
| CRHEATER331A00 | 15.8/19.3 kW 208/230-1/3-60 Volt Electric Heater | 1 |
| CRSINGLE038A00 | Single Point Kit | 1 |

Certified Drawing for 4 Ton

Project: RCF Office Expansion
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NOTES:

1. DIMENSIONS ARE IN INCHES, DIMENSIONS IN [] ARE IN MILLIMETERS.
2. CENTER OF GRAVITY
3. DIRECTION OF AIR FLOW
4. ALL VIEW DRAWN USING 3RD ANGLE

| UNIT | J | K |
|----------|------------------|-----------------|
| 50FC**04 | 33 3/8 [847] | 18 5/8 [472] |
| 50FC**05 | 33 3/8 [847] | 14 7/8 [377] |
| 50FC**06 | 33 3/8 [847] | 14 7/8 [377] |
| 50FC**07 | 41 3/8 [1051] | 18 5/8 [472] |

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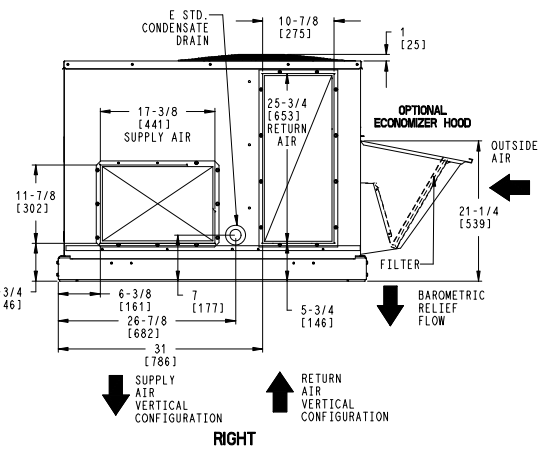
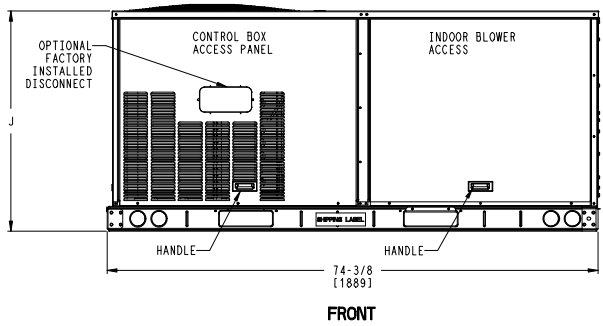
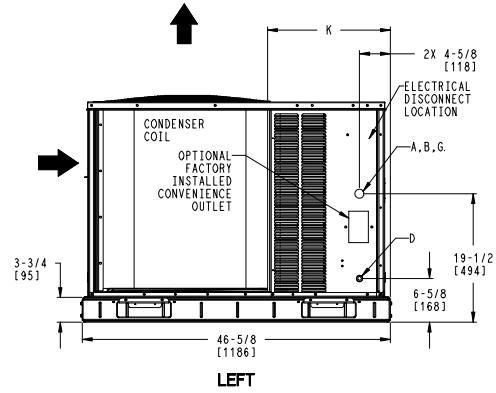
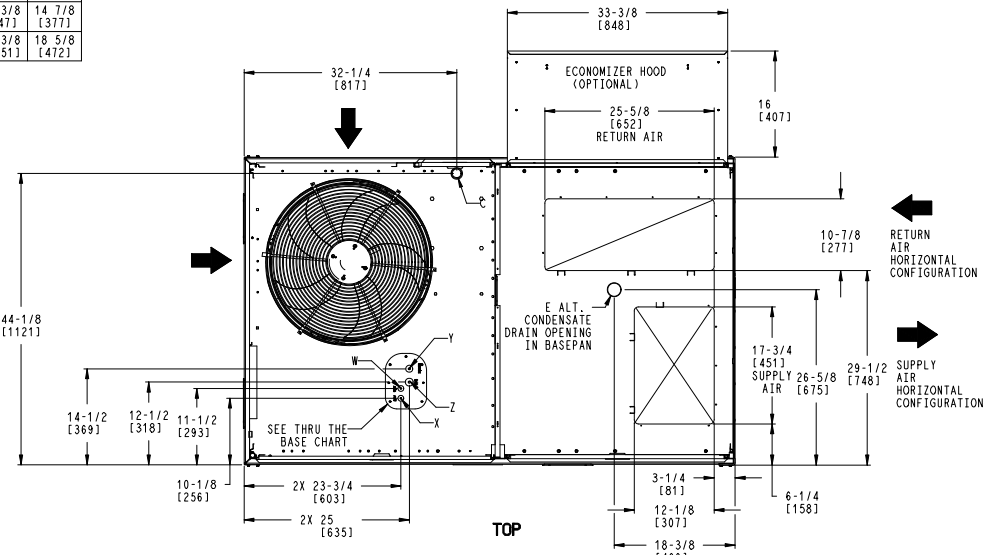
| CONNECTION SIZES | |
|------------------|---|
| A | 1 3/8" [35] DIA FIELD POWER SUPPLY HOLE |
| B | 2" [51] DIA POWER SUPPLY KNOCKOUT |
| C | 1 3/4" [44] DIA GAUGE ACCESS PLUG |
| D | 7/8" [22] DIA FIELD CONTROL WIRING HOLE |
| E | 3/4"-14 NPT CONDENSATE DRAIN |
| G | 2 1/2" [64] DIA POWER SUPPLY KNOCK-OUT |

| THRU-THE-BASE CHART THESE HOLES REQUIRED FOR USE CBTWR008A00, D09A00 | | | |
|--|-----------------------|----------|-------------------------|
| | THREADED CONDUIT SIZE | WIRE USE | REQ'D HOLE SIZES (MAX.) |
| W | 1/2" | 115V | 7/8" [22.2] |
| X | 1/2" | 24V | 7/8" [22.2] |
| Y * | 3/4" | POWER | 1 1/8" [28.6] |
| Z ** | (009A00) 1/2" FPT | GAS | 1 1/8" [28.6] |

FOR "THRU-THE-BASEPAN" FACTORY OPTION, FITTINGS FOR ONLY X, Y, & Z ARE PROVIDED

* SELECT EITHER 3/4" OR 1/2" FOR POWER, DEPENDING ON WIRE SIZE

** (008A00) PROVIDES 3/4" FPT THRU CURB FLANGE & FITTING.



| | | | | | | |
|--------------------|--------|----------|------------|---|------------|-----|
| ITC CLASSIFICATION | SHEET | DATE | SUPERCEDES | 50FC 04-07 SINGLE PACKAGE ELECTRICAL COOLING WITH ELECTRIC HEAT | 48TC003094 | REV |
| U.S. ECCN:NSR | 1 OF 3 | 09/07/18 | 06/22/18 | | | A |

Certified Drawing for 4 Ton

Project: RCF Office Expansion
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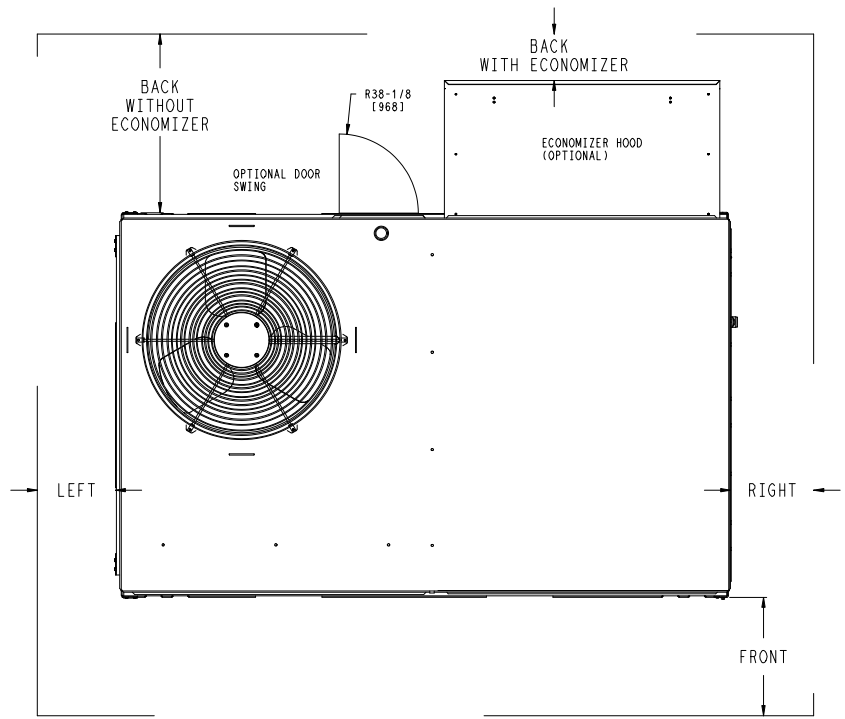
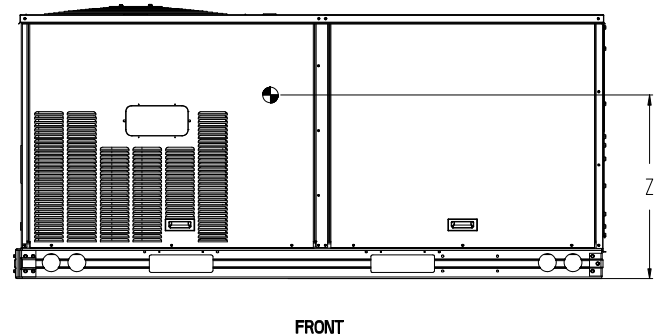
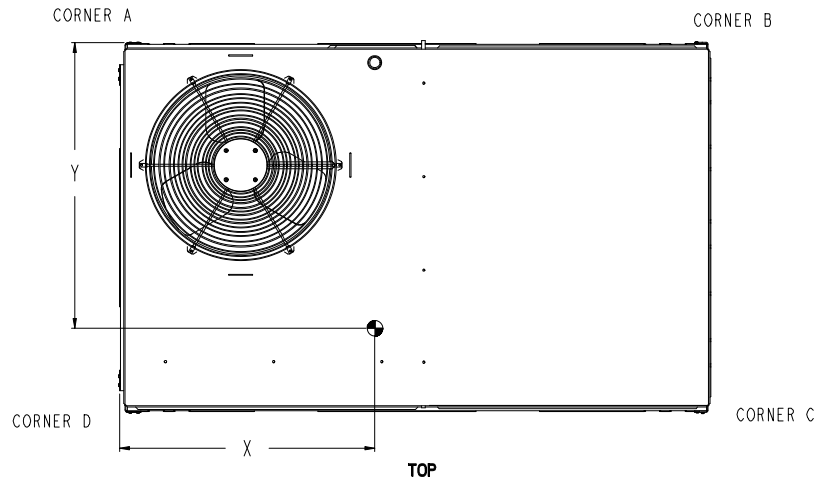
| UNIT | STD. UNIT WEIGHT* | | CORNER WEIGHT (A) | | CORNER WEIGHT (B) | | CORNER WEIGHT (C) | | CORNER WEIGHT (D) | | C.G. | | | HEIGHT |
|----------|-------------------|-----|-------------------|-----|-------------------|-----|-------------------|-----|-------------------|-----|--------------|---------------|--------------|--------|
| | LBS. | KG. | LBS. | KG. | LBS. | KG. | LBS. | KG. | LBS. | KG. | X | Y | Z | |
| 50FC**04 | 437 | 198 | 110 | 50 | 107 | 49 | 108 | 49 | 112 | 51 | 36 5/8 [930] | 23 9/16 [598] | 18 1/2 [470] | |
| 50FC**05 | 498 | 226 | 136 | 62 | 124 | 56 | 114 | 52 | 125 | 57 | 35 1/2 [902] | 22 3/8 [568] | 18 1/4 [464] | |
| 50FC**06 | 511 | 232 | 139 | 63 | 127 | 58 | 117 | 53 | 128 | 58 | 35 1/2 [902] | 22 3/8 [568] | 18 1/4 [464] | |
| 50FC**07 | 562 | 255 | 154 | 70 | 137 | 62 | 127 | 58 | 143 | 65 | 35 [889] | 22 1/2 [572] | 19 1/2 [495] | |

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

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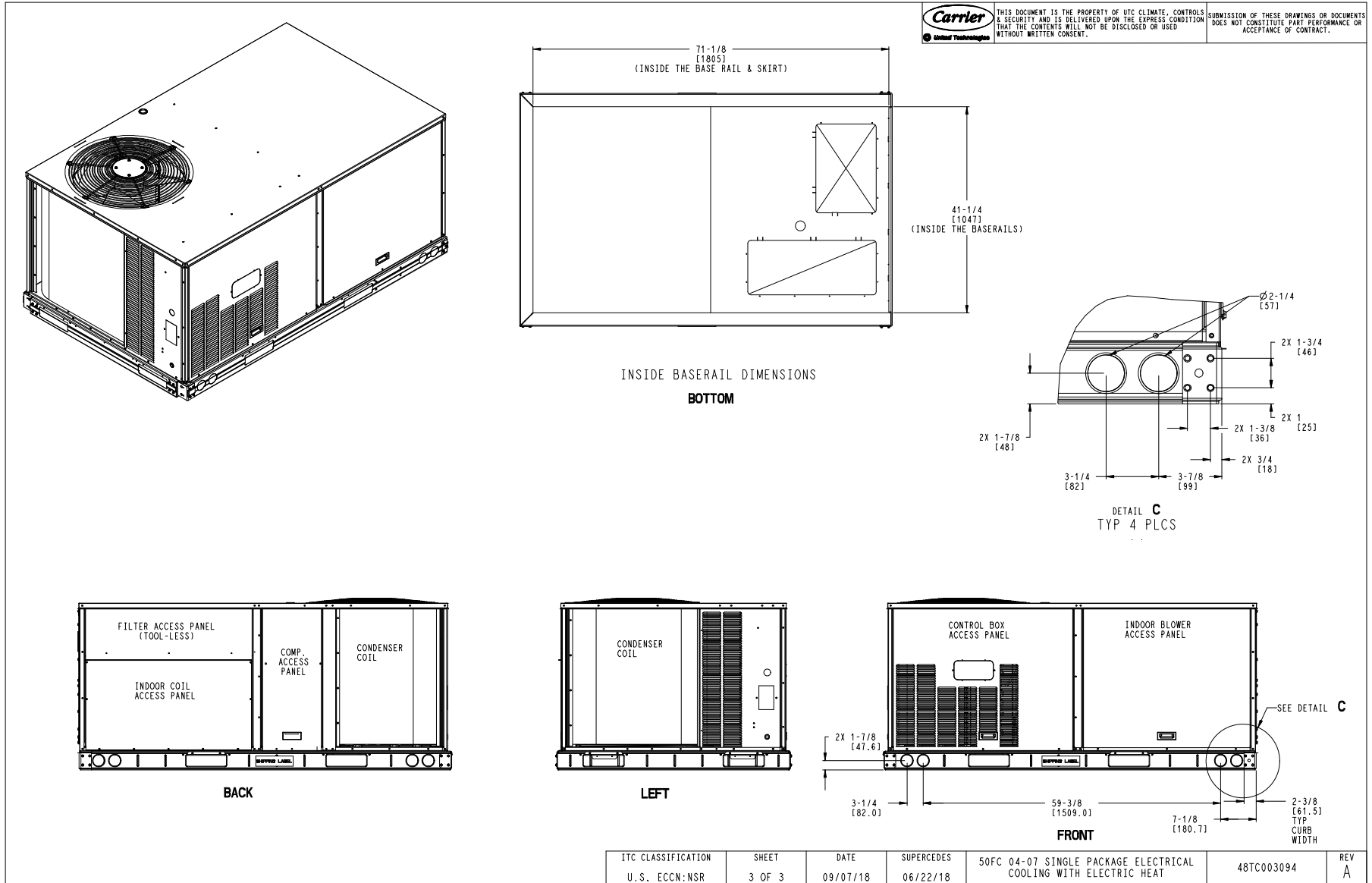
| SURFACE | CLEARANCE | | OPERATING CLEARANCE |
|---------------|-------------------------------------|--|---------------------|
| | SERVICE WITH: CONDUCTIVE BARRIER | SERVICE WITH: NONCONDUCTIVE BARRIER | |
| FRONT | 48 [1219mm] | 36 [914mm] | 18 [457mm] |
| LEFT | 48 [1219mm] | 42 [1067mm] | 18 [457mm]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

| | | | | | | |
|-------------------------------------|-----------------|------------------|------------------------|---|------------|----------|
| ITC CLASSIFICATION U.S. ECCN:NSR | SHEET 2 OF 3 | DATE 09/07/18 | SUPERCEDES 06/22/18 | 50FC 04-07 SINGLE PACKAGE ELECTRICAL COOLING WITH ELECTRIC HEAT | 48TC003094 | REV A |
|-------------------------------------|-----------------|------------------|------------------------|---|------------|----------|

Certified Drawing for 4 Ton

Project: RCF Office Expansion
Prepared By:

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Performance Summary For 4 Ton

Project: RCF Office Expansion
 Prepared By:

RTU-02

03/10/2023
 11:13AM

Part Number:50FC-A05A2A5-0A0A0

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:.....498 lb

Accessories

14-inch Tall Roof Curb:.....115 lb
 15.8/19.3 kW 208/230-1/3-60 Volt Electric Heater:.....10 lb
 Single Point Kit:.....10 lb

Total Operating Weight:.....633 lb

Unit

| | |
|--------------------------------|------------|
| Unit Voltage-Phase-Hertz:..... | 208-3-60 |
| Air Discharge:..... | Horizontal |
| Fan Drive Type:..... | Vane Axial |
| Actual Airflow:..... | 1430 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:.....59.0 F
 Evaporator Leaving Air WB:.....56.4 F
 Evaporator Leaving Air Enthalpy:.....24.03 BTU/lb
 Gross Cooling Capacity:.....47.65 MBH
 Gross Sensible Capacity:.....32.51 MBH
 Compressor Power Input:.....3.43 kW
 Coil Bypass Factor:.....0.119

Heating Performance

Heating Airflow:.....1430 CFM
 Entering Air Temp:.....70.0 F
 Leaving Air Temp:.....104.9 F
 Electric Heating Capacity:.....15.80 kW

Supply Fan

| | |
|--|------------|
| External Static Pressure:..... | 0.50 in wg |
| Options / Accessories Static Pressure | |
| Electric Heaters:..... | 0.13 in wg |
| Application External Static (ESP + Unit Opts/Acc.):..... | 0.63 in wg |
| Fan RPM:..... | 1602 |
| Fan Power:..... | 0.44 BHP |
| NOTE:.....Selected IFM RPM Range: 217 - 2170 | |

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:.....13.7
 Compressor #1 LRA:.....83
 Actual Electric Heater kW:.....15.8
 Electric Heater FLA:.....43.8

Performance Summary For 4 Ton

Project: RCF Office Expansion
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| | |
|-----------------------------------|----------------|
| Indoor Fan Motor Type: | MED |
| Indoor Fan Motor FLA (Total): | 7.1 |
| Power Supply MCA: | 64 |
| Power Supply MOCP (Fuse or HACR): | 70 |
| Disconnect Size FLA: | 59 |
| Disconnect Size LRA: | 97 |
| Electrical Convenience Outlet: | None |
| Outdoor Fan [Qty / FLA (ea)]: | 1 / 1.5 |
| Electric Heater Part Number: | 331A |
| Electric Heater Number of Stages: | 2 |

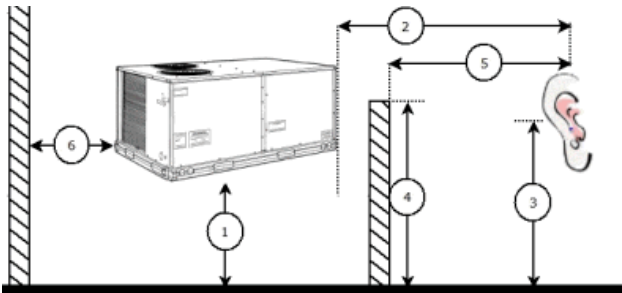
Control Panel SCCR: 5kA RMS at Rated Symmetrical Voltage

Acoustics

Sound Power Levels, db re 10E-12 Watts

| | Discharge | Inlet | Outdoor |
|------------|-----------|-------|---------|
| 63 Hz | 89.0 | 86.5 | 85.6 |
| 125 Hz | 79.1 | 73.7 | 84.7 |
| 250 Hz | 72.7 | 69.2 | 80.5 |
| 500 Hz | 68.0 | 59.2 | 76.0 |
| 1000 Hz | 63.6 | 62.4 | 72.4 |
| 2000 Hz | 60.5 | 53.3 | 68.0 |
| 4000 Hz | 58.7 | 47.3 | 62.8 |
| 8000 Hz | 56.8 | 41.6 | 59.3 |
| A-Weighted | 71.6 | 67.2 | 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 4 Ton

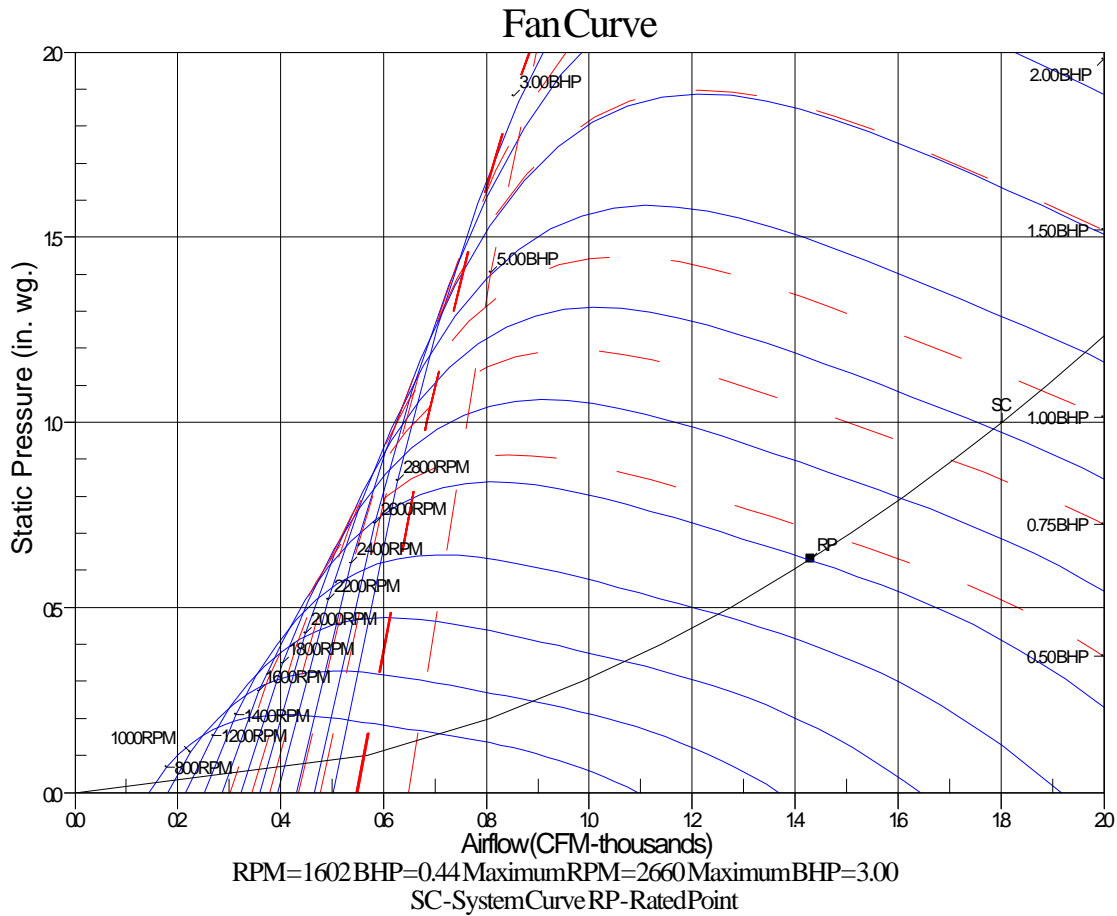
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Legend

- 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.



5 Ton

Project: RCF Office Expansion
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5 Ton

Tag Cover Sheet Unit Report Certified Drawing Performance Report

RTU-03

Unit Report For 5 Ton

Project: RCF Office Expansion
Prepared By:

RTU-03

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Unit Parameters

Unit Model: **50FC-A06A2A5-6F0A0**
 Unit Size: **06 (5 Tons)**
 Volts-Phase-Hertz: **208-3-60**
 Heating Type: **Electric**
 Heat Control: **Single Stage Compressor Models**
 Duct Cfg: **Vertical Supply / Vertical Return**

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

Unit Length: **6' 2.375"**
 Unit Width: **3' 10.625"**
 Unit Height: **2' 9.375"**
Total Operating Weight: 733 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

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. This filter is not MERV Rated.

Unit Configuration

Direct Drive EcoBlue - Medium Static
 Al/Cu - Al/Cu
 Electromechanical Controls w/W7220 Econo Controller
 Enthalpy Economizer with Barometric Relief
 Standard Packaging

Warranty Information

5-Year compressor parts (STD.)
 5-Year electric heater (STD.)
 1-Year parts (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 |
|------------------------------------|--|----------|
| 50FC-A06A2A5-6F0A0 | Rooftop Unit | 1 |
| Field Installed Accessories | | |
| CRRFCURB001A01 | 14-inch Tall Roof Curb | 1 |
| 33CS2PP2S-03 | Thermostat | 1 |
| CRHEATER332A00 | 18.4/22.5 kW 208/230-3-60 Volt Electric Heater | 1 |
| CRSINGLE038A00 | Single Point Kit | 1 |
| CRPWREXH030A01 | Power Exhaust System (208/230-1-60) | 1 |

Certified Drawing for 5 Ton

Project: RCF Office Expansion
Prepared By:

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2. CENTER OF GRAVITY
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| UNIT | J | K |
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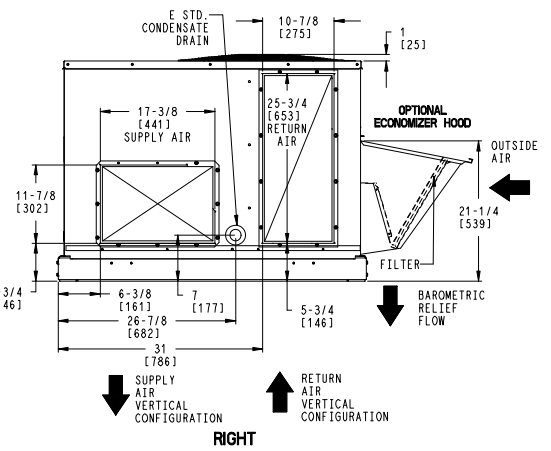
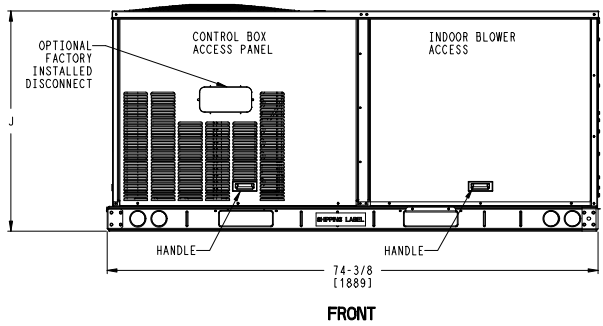
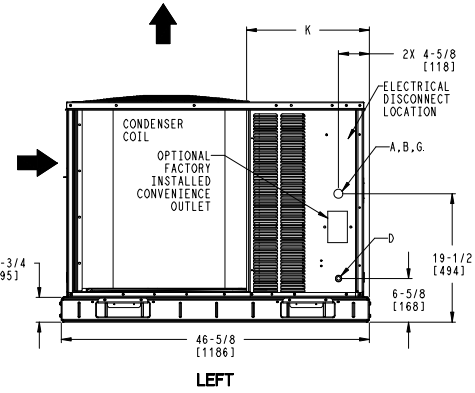
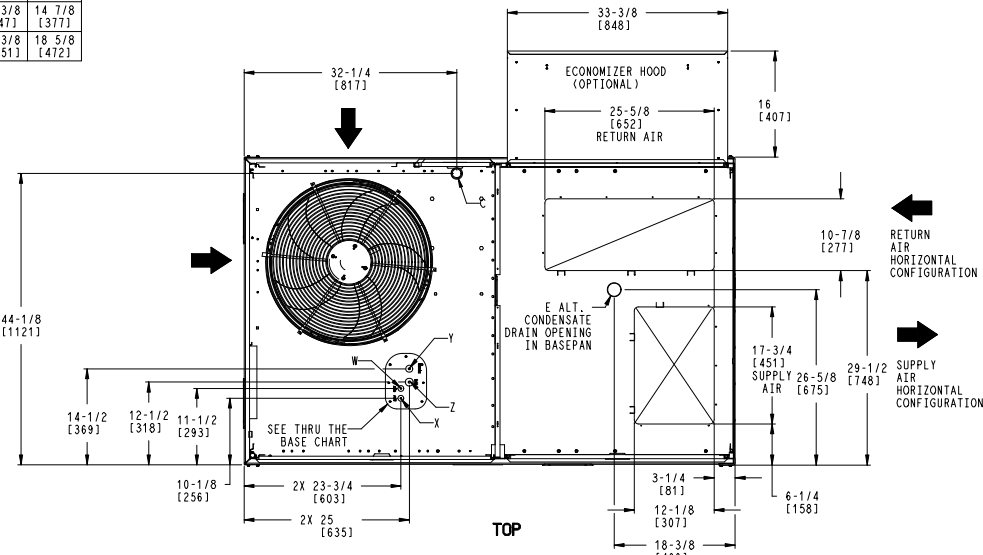
| CONNECTION SIZES | |
|------------------|---|
| A | 1 3/8" [35] DIA FIELD POWER SUPPLY HOLE |
| B | 2" [51] DIA POWER SUPPLY KNOCKOUT |
| C | 1 3/4" [44] DIA GAUGE ACCESS PLUG |
| D | 7/8" [22] DIA FIELD CONTROL WIRING HOLE |
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| | THREADED CONDUIT SIZE | WIRE USE | REQ'D HOLE SIZES (MAX.) |
| W | 1/2" | 115V | 7/8" [22.2] |
| X | 1/2" | 24V | 7/8" [22.2] |
| Y * | 3/4" | POWER | 1 1/8" [28.6] |
| Z ** | (009A00) 1/2" FPT | GAS | 1 1/8" [28.6] |

FOR "THRU-THE-BASEPAN" FACTORY OPTION, FITTINGS FOR ONLY X, Y, & Z ARE PROVIDED

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Certified Drawing for 5 Ton

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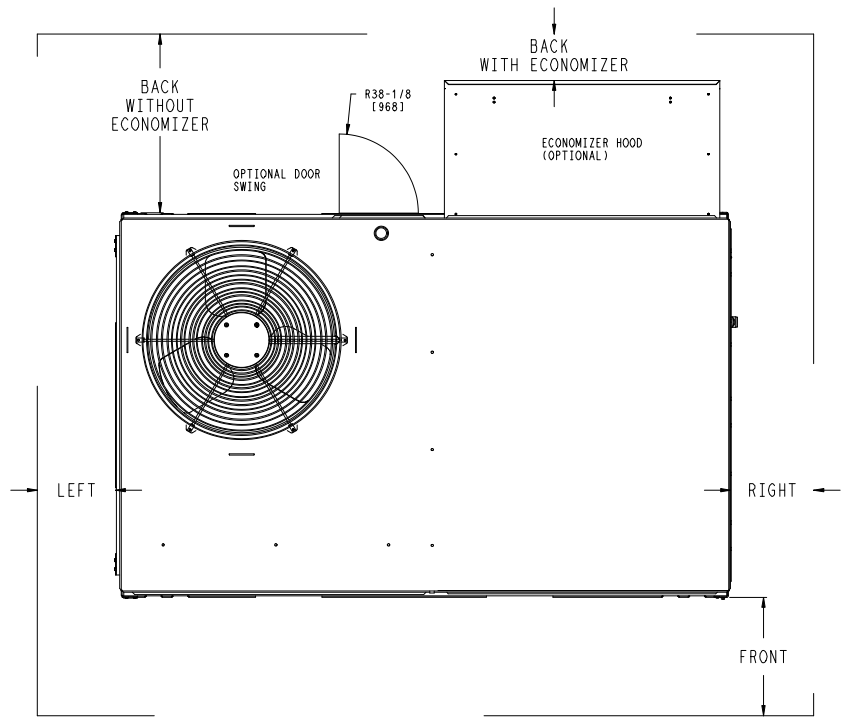
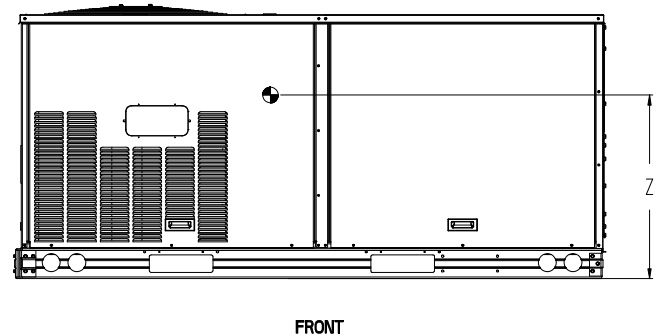
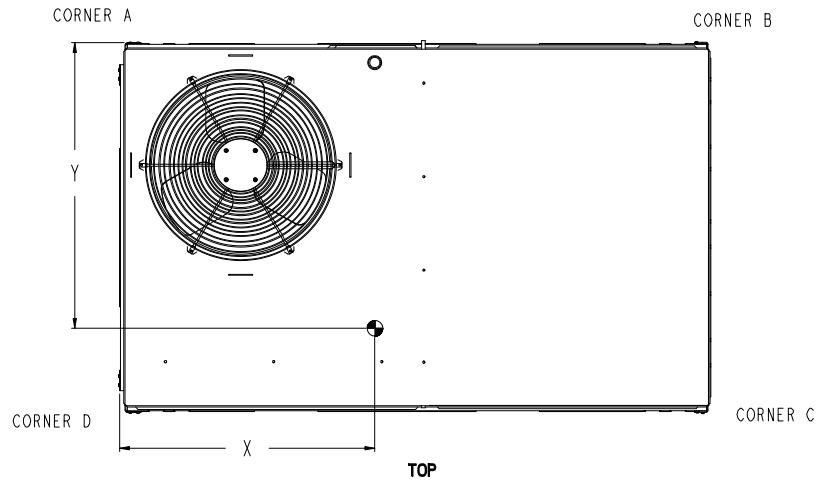
03/10/2023
11:13AM

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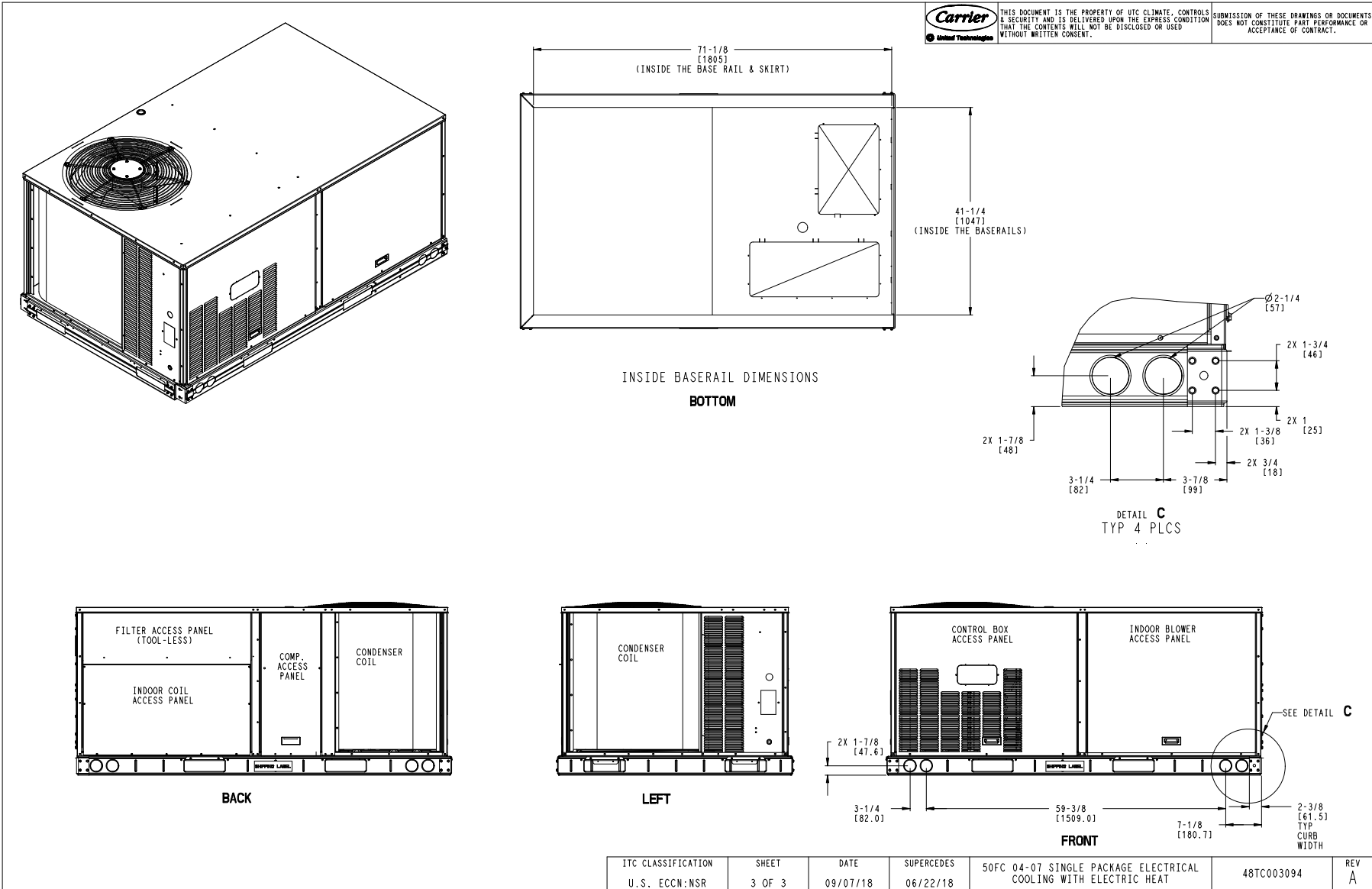
| SURFACE | CLEARANCE | | OPERATING CLEARANCE |
|---------------|-------------------------------------|--|---------------------|
| | SERVICE WITH: CONDUCTIVE BARRIER | SERVICE WITH: NONCONDUCTIVE BARRIER | |
| FRONT | 48 [1219mm] | 36 [914mm] | 18 [457mm] |
| LEFT | 48 [1219mm] | 42 [1067mm] | 18 [457mm]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

| | | | | | | |
|-------------------------------------|-----------------|------------------|------------------------|---|------------|----------|
| ITC CLASSIFICATION U.S. ECCN:NSR | SHEET 2 OF 3 | DATE 09/07/18 | SUPERCEDES 06/22/18 | 50FC 04-07 SINGLE PACKAGE ELECTRICAL COOLING WITH ELECTRIC HEAT | 48TC003094 | REV A |
|-------------------------------------|-----------------|------------------|------------------------|---|------------|----------|

Certified Drawing for 5 Ton

Project: RCF Office Expansion
Prepared By:

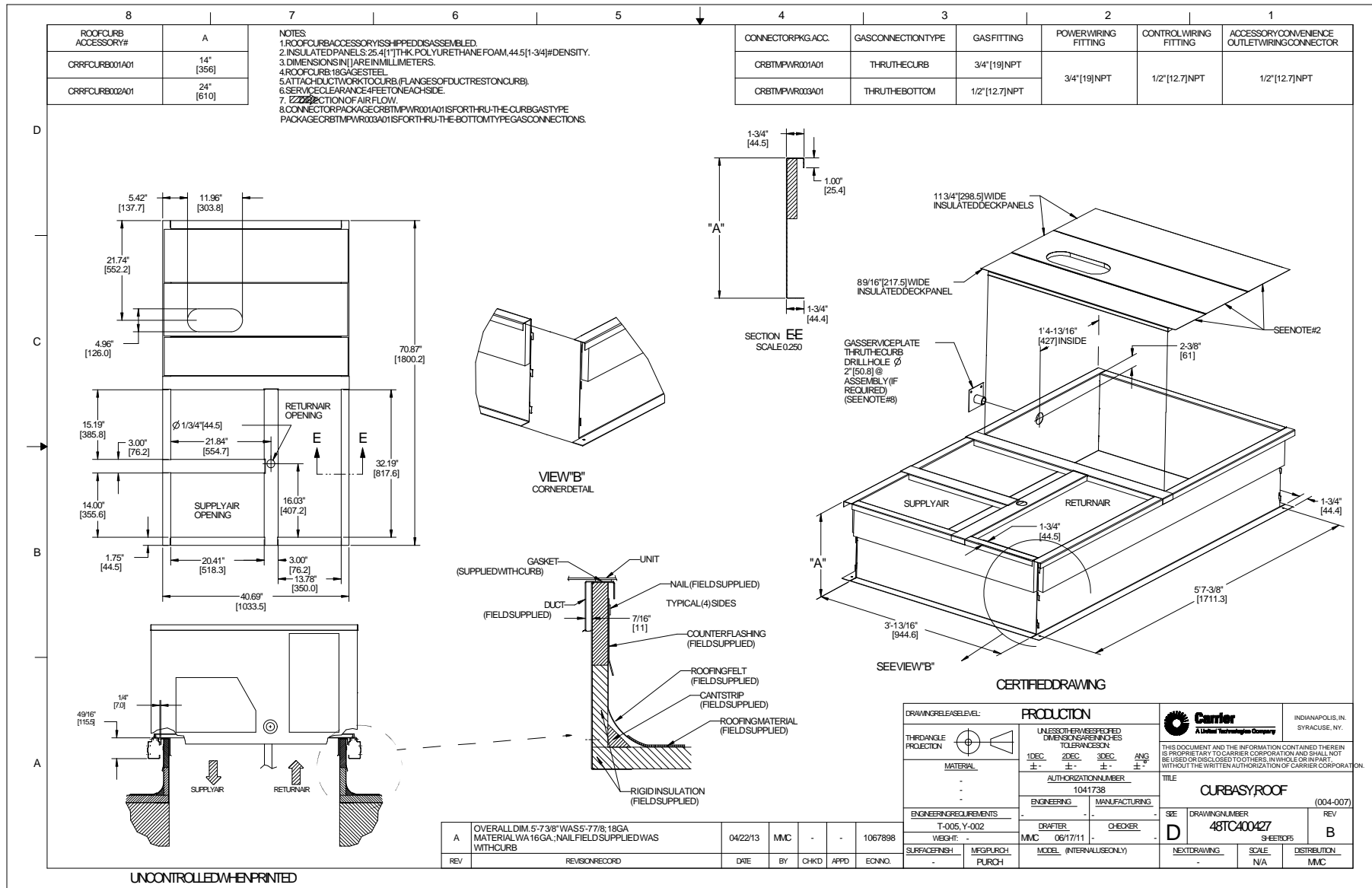
03/10/2023
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Certified Drawing for 5 Ton

Project: RCF Office Expansion
Prepared By:

03/10/2023
11:13AM



Performance Summary For 5 Ton

Project: RCF Office Expansion
 Prepared By:

RTU-03

03/10/2023
 11:13AM

Part Number:50FC-A06A2A5-6F0A0

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
 Enthalpy Economizer with Barometric Relief:.....37 lb

Accessories

14-inch Tall Roof Curb:.....115 lb
 18.4/22.5 kW 208/230-3-60 Volt Electric Heater:.....10 lb
 Single Point Kit:.....10 lb
 Power Exhaust System (208/230-1-60):.....50 lb

Total Operating Weight:.....733 lb

Unit

Unit Voltage-Phase-Hertz:.....208-3-60
 Air Discharge:.....Vertical
 Fan Drive Type:.....Vane Axial
 Actual Airflow:.....2060 CFM
 Site Altitude:.....0 ft

Cooling Performance

Condenser Entering Air DB:.....95.0 F
 Evaporator Entering Air DB:.....78.0 F
 Evaporator Entering Air WB:.....66.0 F
 Entering Air Enthalpy:.....30.66 BTU/lb
 Evaporator Leaving Air DB:.....58.6 F
 Evaporator Leaving Air WB:.....57.0 F
 Evaporator Leaving Air Enthalpy:.....24.38 BTU/lb
 Gross Cooling Capacity:.....58.27 MBH
 Gross Sensible Capacity:.....43.17 MBH
 Compressor Power Input:.....4.13 kW
 Coil Bypass Factor:.....0.172

Heating Performance

Heating Airflow:.....2060 CFM
 Entering Air Temp:.....70.0 F
 Leaving Air Temp:.....98.2 F
 Electric Heating Capacity:.....18.40 kW

Supply Fan

External Static Pressure:.....0.50 in wg
 Options / Accessories Static Pressure
 Electric Heaters:.....0.24 in wg
 Economizer:.....0.12 in wg
 Power Exhaust:.....(Fan Data Includes Drop)
 Application External Static (ESP + Unit Opts/Acc.):.....0.86 in wg
 Fan RPM:.....1979
 Fan Power:.....0.82 BHP

NOTE:.....Selected IFM RPM Range: 239 - 2390

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

Power Exhaust

Return Duct Static:.....0.40 in wg

Performance Summary For 5 Ton

Project: RCF Office Expansion
Prepared By:

03/10/2023
11:13AM

Max. Air To Exhaust:.....**500** CFM

Electrical Data

| | |
|---|------------------|
| Voltage Range:..... | 187 - 253 |
| Compressor #1 RLA:..... | 16 |
| Compressor #1 LRA:..... | 110 |
| Actual Electric Heater KW:..... | 18.4 |
| Electric Heater FLA:..... | 51.1 |
| Indoor Fan Motor Type:..... | MED |
| Indoor Fan Motor FLA (Total):..... | 9.2 |
| Power Supply MCA:..... | 78 |
| Power Supply MOCP (Fuse or HACR):..... | 80 |
| Disconnect Size FLA:..... | 72 |
| Disconnect Size LRA:..... | 129 |
| Electrical Convenience Outlet:..... | None |
| Power Exhaust [Kit Qty / FLA(ea kit)]:..... | 1 / 1.9 |
| Outdoor Fan [Qty / FLA (ea)]:..... | 1 / 1.5 |
| Electric Heater Part Number:..... | 332A |
| Electric Heater Number of Stages:..... | 2 |

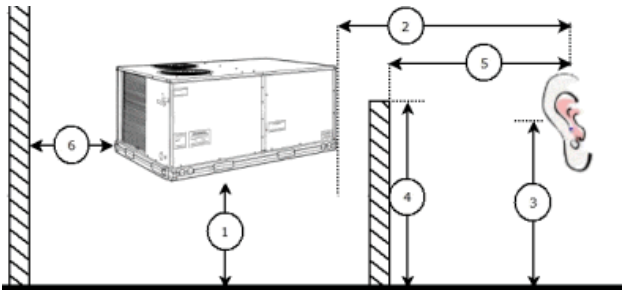
Control Panel SCCR: 5kA RMS at Rated Symmetrical Voltage

Acoustics

Sound Power Levels, db re 10E-12 Watts

| | Discharge | Inlet | Outdoor |
|----------------|------------------|--------------|----------------|
| 63 Hz | 90.4 | 87.6 | 85.6 |
| 125 Hz | 81.4 | 77.6 | 84.7 |
| 250 Hz | 75.5 | 70.7 | 80.5 |
| 500 Hz | 72.8 | 64.2 | 76.0 |
| 1000 Hz | 69.2 | 66.8 | 72.4 |
| 2000 Hz | 66.8 | 58.2 | 68.0 |
| 4000 Hz | 63.0 | 51.2 | 62.8 |
| 8000 Hz | 59.4 | 45.9 | 59.3 |
| A-Weighted | 75.8 | 70.6 | 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 |

Performance Summary For 5 Ton

Project: RCF Office Expansion
Prepared By:

03/10/2023
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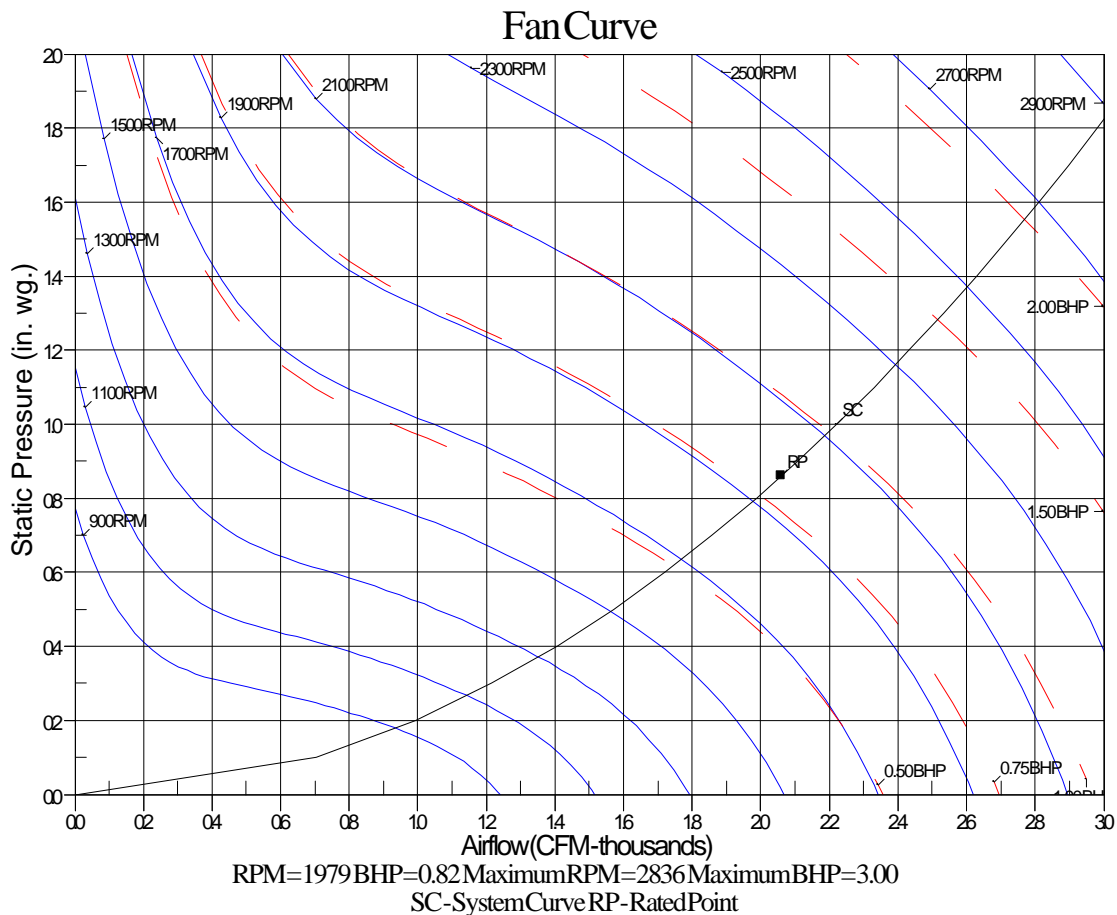
Detailed Acoustics Information

| 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 |

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.



3 Ton

Project: RCF Office Expansion
Prepared By:

03/10/2023
11:13AM

3 Ton

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

RTU-01, RTU-04, RTU-05, RTU-07

Unit Report For 3 Ton

Project: RCF Office Expansion
Prepared By:

RTU-01, RTU-04, RTU-05, RTU-07

03/10/2023
11:13AM

Unit Parameters

Unit Model: **50FC-A04A2A5-0A0A0**
 Unit Size: **04 (3 Tons)**
 Volts-Phase-Hertz: **208-3-60**
 Heating Type: **Electric**
 Heat Control: **Single Stage Compressor Models**
 Duct Cfg: **Horizontal Supply / Horizontal Return**

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

Unit Length: **6' 2.375"**
 Unit Width: **3' 10.625"**
 Unit Height: **2' 9.375"**
Total Operating Weight: 572 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

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. This filter is not MERV Rated.

Unit Configuration

Direct Drive - EcoBlue - Medium Static
 Al/Cu - Al/Cu
 Base Electro-mechanical controls
 Standard Packaging

Warranty Information

5-Year compressor parts (STD.)
 5-Year electric heater (STD.)
 1-Year parts (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 |
|------------------------------------|------------------------|----------|
| 50FC-A04A2A5-0A0A0 | Rooftop Unit | 5 |
| Field Installed Accessories | | |
| CRRFCURB001A01 | 14-inch Tall Roof Curb | 5 |
| 33CS2PP2S-03 | Thermostat | 5 |
| CRHEATER328A00 | Electric Heater | 5 |
| CRSINGLE037A00 | Single Point Kit | 5 |

Certified Drawing for 3 Ton

Project: RCF Office Expansion
Prepared By:

03/10/2023
11:13AM

NOTES:

1. DIMENSIONS ARE IN INCHES, DIMENSIONS IN [] ARE IN MILLIMETERS.
2. CENTER OF GRAVITY
3. DIRECTION OF AIR FLOW
4. ALL VIEW DRAWN USING 3RD ANGLE

| UNIT | J | K |
|----------|------------------|-----------------|
| 50FC**04 | 33 3/8 [847] | 18 5/8 [472] |
| 50FC**05 | 33 3/8 [847] | 14 7/8 [377] |
| 50FC**06 | 33 3/8 [847] | 14 7/8 [377] |
| 50FC**07 | 41 3/8 [1051] | 18 5/8 [472] |

Carrier
United Technologies

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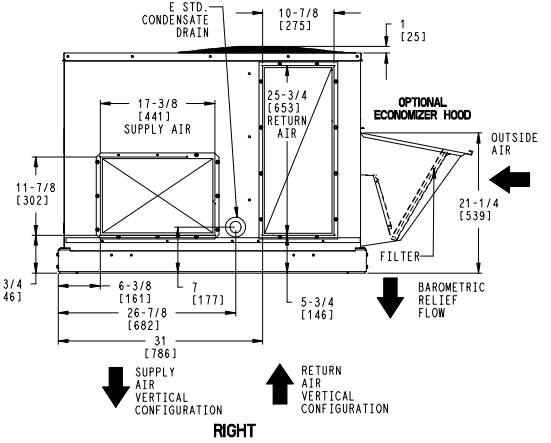
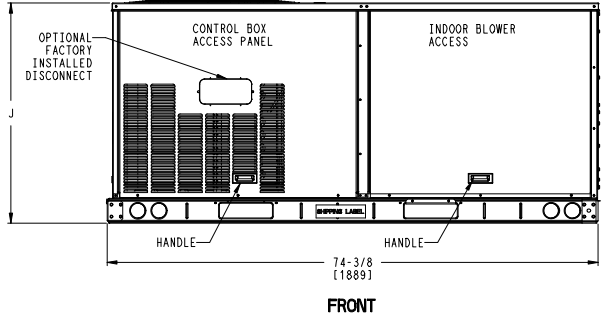
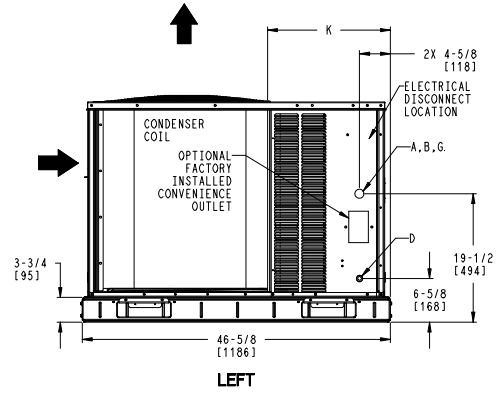
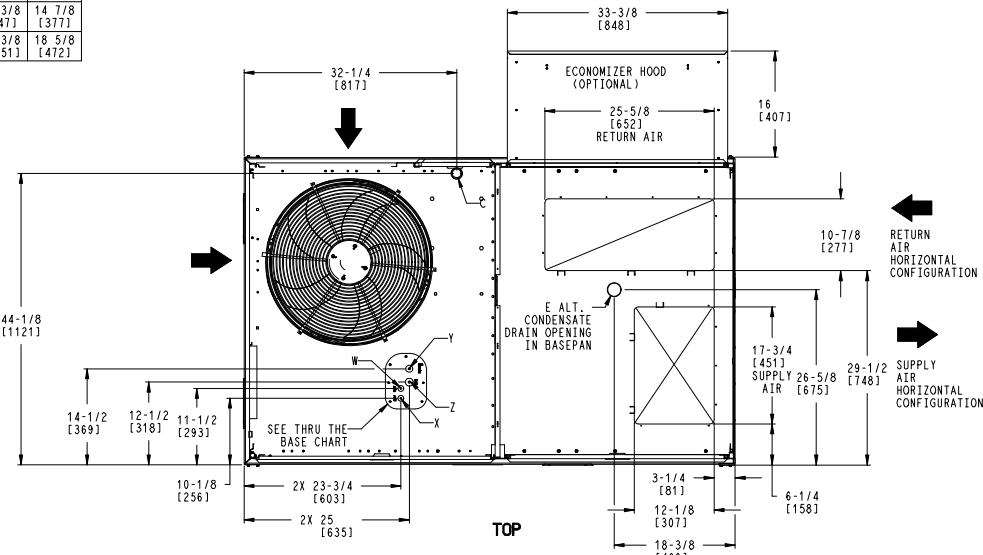
| CONNECTION SIZES | |
|------------------|---|
| A | 1 3/8" [35] DIA FIELD POWER SUPPLY HOLE |
| B | 2" [51] DIA POWER SUPPLY KNOCKOUT |
| C | 1 3/4" [44] DIA GAUGE ACCESS PLUG |
| D | 7/8" [22] DIA FIELD CONTROL WIRING HOLE |
| E | 3/4"-14 NPT CONDENSATE DRAIN |
| G | 2 1/2" [64] DIA POWER SUPPLY KNOCK-OUT |

| THRU-THE-BASE CHART THESE HOLES REQUIRED FOR USE CBTWR008A00, D09A00 | | | |
|--|-----------------------|----------|-------------------------|
| | THREADED CONDUIT SIZE | WIRE USE | REQ'D HOLE SIZES (MAX.) |
| W | 1/2" | 115V | 7/8" [22.2] |
| X | 1/2" | 24V | 7/8" [22.2] |
| Y * | 3/4" | POWER | 1 1/8" [28.6] |
| Z ** | (009A00) 1/2" FPT | GAS | 1 1/8" [28.6] |

FOR "THRU-THE-BASEPAN" FACTORY OPTION, FITTINGS FOR ONLY X, Y, & Z ARE PROVIDED

* SELECT EITHER 3/4" OR 1/2" FOR POWER, DEPENDING ON WIRE SIZE

** (008A00) PROVIDES 3/4" FPT THRU CURB FLANGE & FITTING.



| | | | | | | |
|--------------------|--------|----------|------------|---|------------|-----|
| ITC CLASSIFICATION | SHEET | DATE | SUPERCEDES | 50FC 04-07 SINGLE PACKAGE ELECTRICAL COOLING WITH ELECTRIC HEAT | 48TC003094 | REV |
| U.S. ECCN:NSR | 1 OF 3 | 09/07/18 | 06/22/18 | | | A |

Certified Drawing for 3 Ton

Project: RCF Office Expansion
Prepared By:

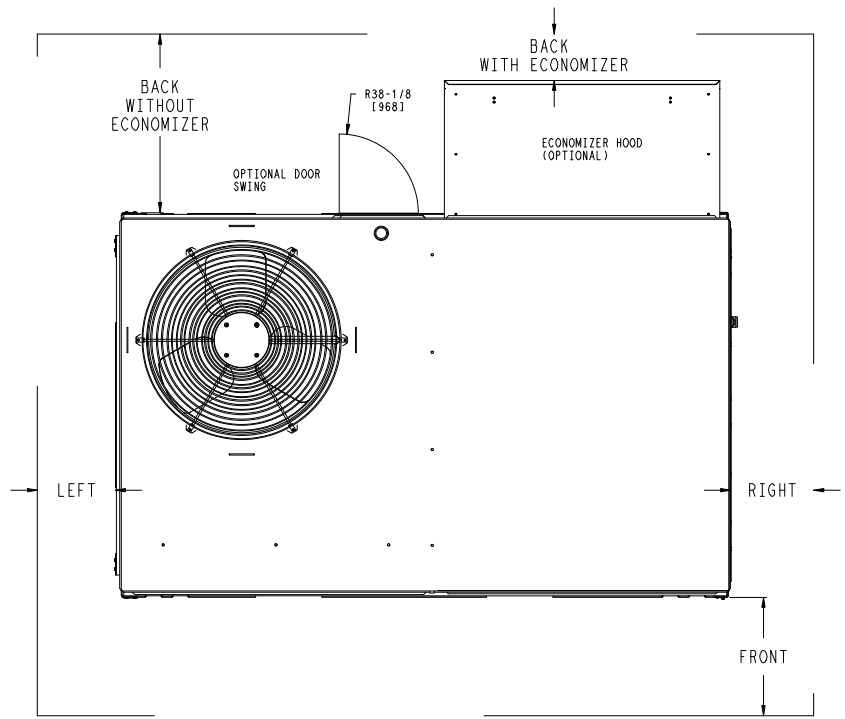
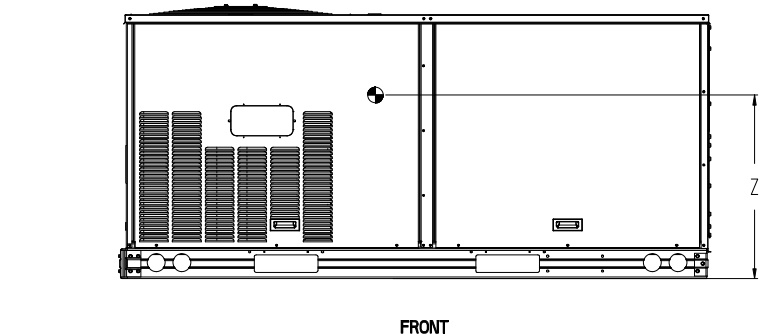
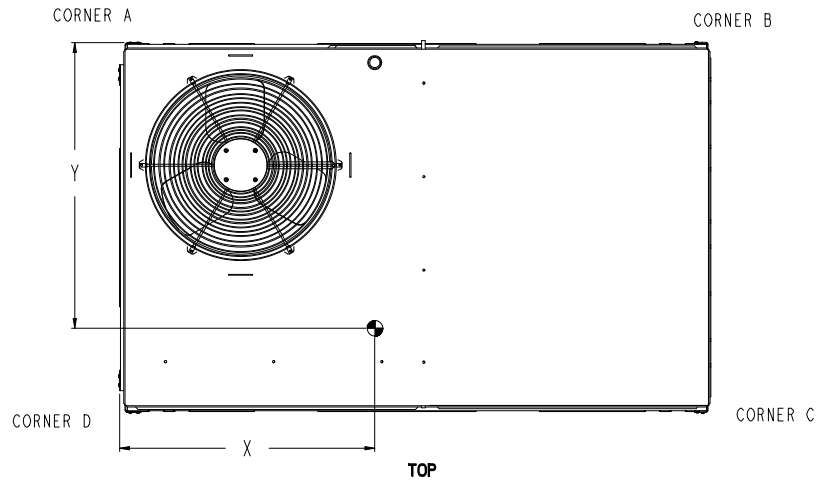
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| UNIT | STD. UNIT WEIGHT* | | CORNER WEIGHT (A) | | CORNER WEIGHT (B) | | CORNER WEIGHT (C) | | CORNER WEIGHT (D) | | C.G. | | HEIGHT |
|----------|-------------------|-----|-------------------|-----|-------------------|-----|-------------------|-----|-------------------|-----|--------------|---------------|--------------|
| | LBS. | KG. | LBS. | KG. | LBS. | KG. | LBS. | KG. | LBS. | KG. | X | Y | Z |
| 50FC**04 | 437 | 198 | 110 | 50 | 107 | 49 | 108 | 49 | 112 | 51 | 36 5/8 [930] | 23 9/16 [598] | 18 1/2 [470] |
| 50FC**05 | 498 | 226 | 136 | 62 | 124 | 56 | 114 | 52 | 125 | 57 | 35 1/2 [902] | 22 3/8 [568] | 18 1/4 [464] |
| 50FC**06 | 511 | 232 | 139 | 63 | 127 | 58 | 117 | 53 | 128 | 58 | 35 1/2 [902] | 22 3/8 [568] | 18 1/4 [464] |
| 50FC**07 | 562 | 255 | 154 | 70 | 137 | 62 | 127 | 58 | 143 | 65 | 35 [889] | 22 1/2 [572] | 19 1/2 [495] |

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



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NOTE:

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

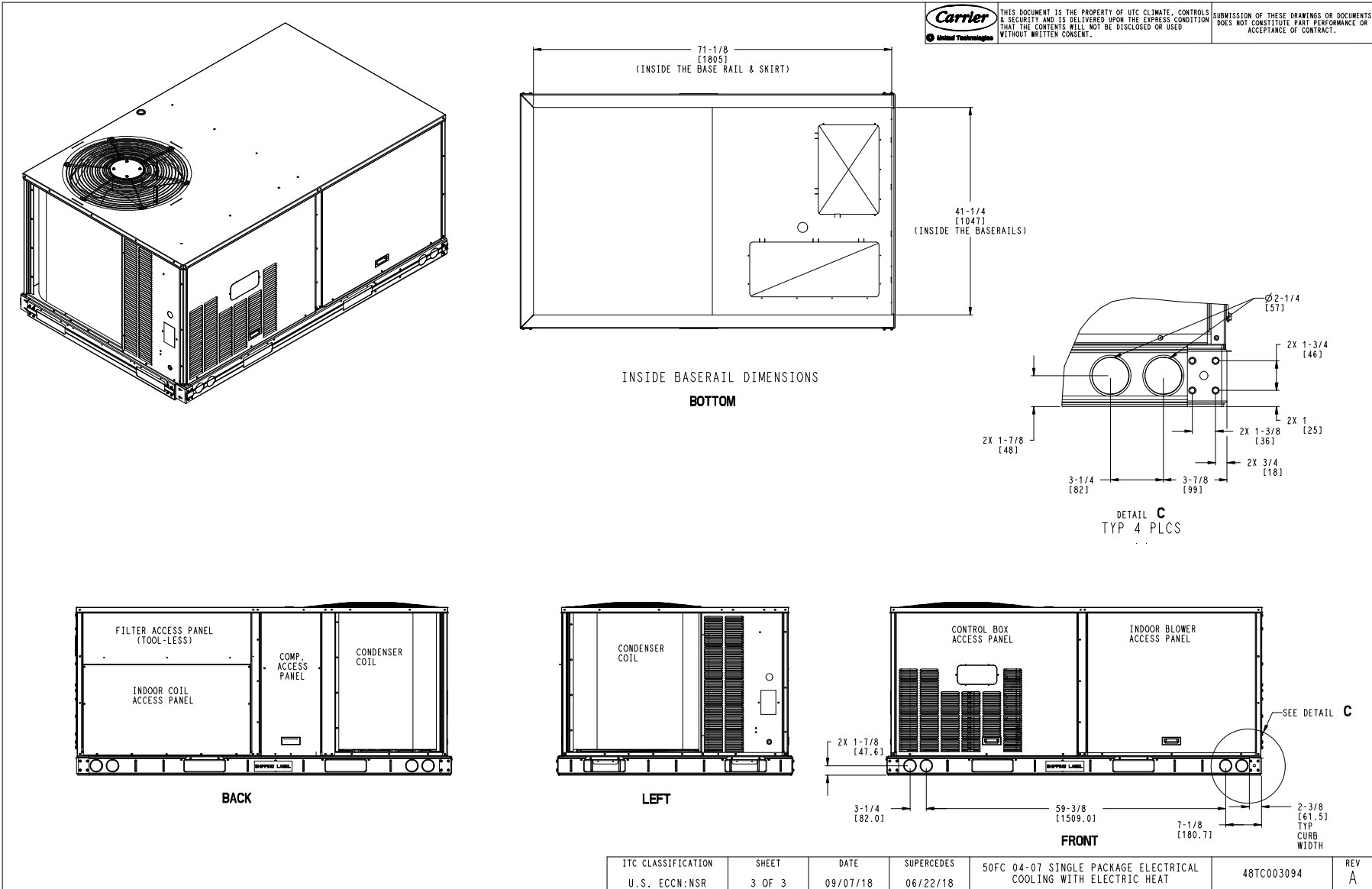
| SURFACE | CLEARANCE | | OPERATING CLEARANCE |
|---------------|-------------------------------------|--|---------------------|
| | SERVICE WITH: CONDUCTIVE BARRIER | SERVICE WITH: NONCONDUCTIVE BARRIER | |
| FRONT | 48 [1219mm] | 36 [914mm] | 18 [457mm] |
| LEFT | 48 [1219mm] | 42 [1067mm] | 18 [457mm]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

| | | | | | | |
|-------------------------------------|-----------------|------------------|------------------------|---|------------|----------|
| ITC CLASSIFICATION U.S. ECCN:NSR | SHEET 2 OF 3 | DATE 09/07/18 | SUPERCEDES 06/22/18 | 50FC 04-07 SINGLE PACKAGE ELECTRICAL COOLING WITH ELECTRIC HEAT | 48TC003094 | REV A |
|-------------------------------------|-----------------|------------------|------------------------|---|------------|----------|

Certified Drawing for 3 Ton

Project: RCF Office Expansion
Prepared By:

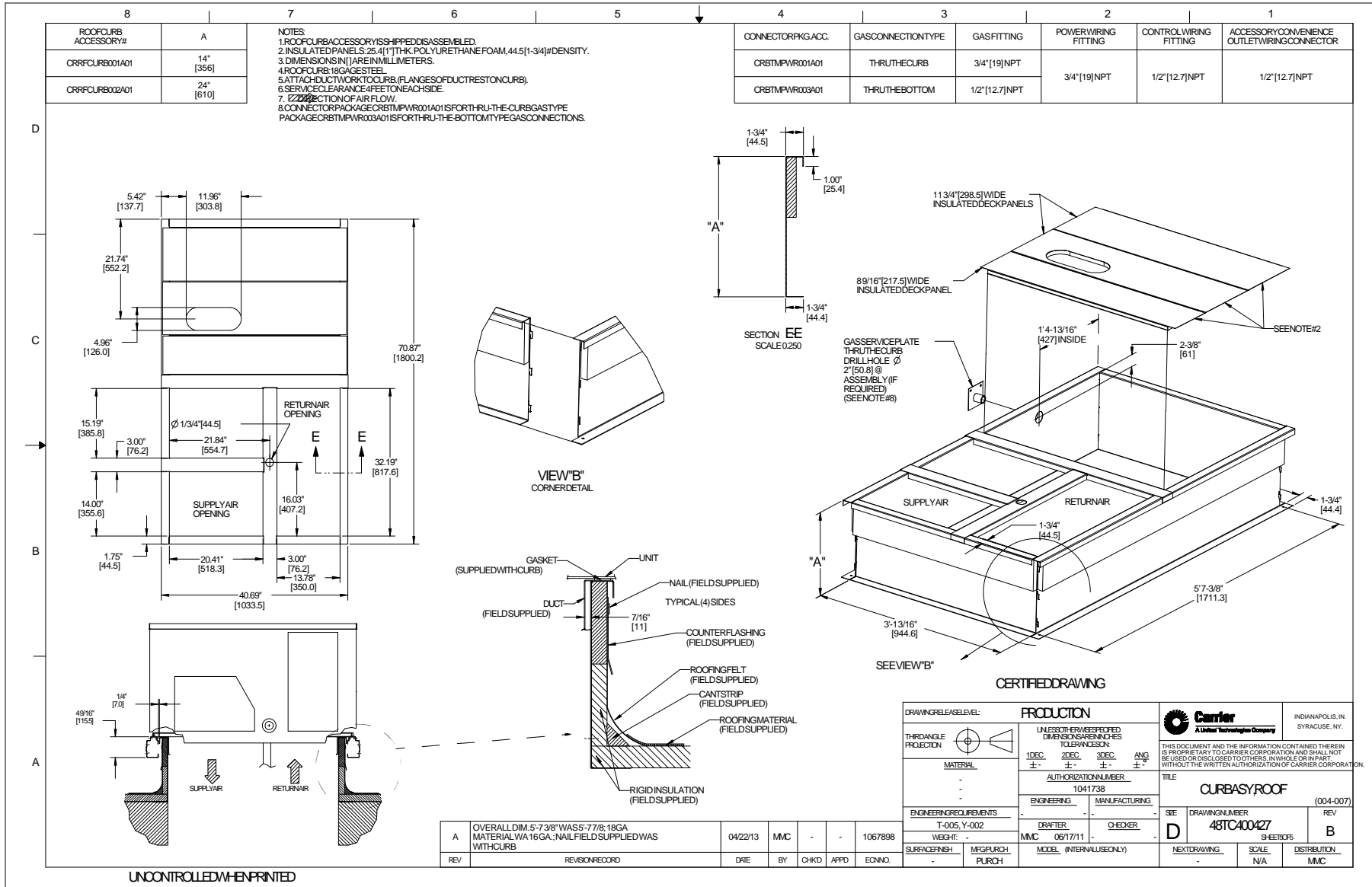
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Certified Drawing for 3 Ton

Project: RCF Office Expansion
Prepared By:

03/10/2023
11:13AM



Performance Summary For 3 Ton

Project: RCF Office Expansion
 Prepared By:

RTU-01, RTU-04, RTU-05, RTU-07

03/10/2023
 11:13AM

Part Number:50FC-A04A2A5-0A0A0

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:.....437 lb

Accessories

14-inch Tall Roof Curb:.....115 lb
 Electric Heater:.....10 lb
 Single Point Kit:.....10 lb

Total Operating Weight:.....572 lb

Unit

| | |
|--------------------------------|------------|
| Unit Voltage-Phase-Hertz:..... | 208-3-60 |
| Air Discharge:..... | Horizontal |
| Fan Drive Type:..... | Vane Axial |
| Actual Airflow:..... | 1020 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:.....58.7 F
 Evaporator Leaving Air WB:.....56.4 F
 Evaporator Leaving Air Enthalpy:.....24.03 BTU/lb
 Gross Cooling Capacity:.....33.99 MBH
 Gross Sensible Capacity:.....23.47 MBH
 Compressor Power Input:.....2.49 kW
 Coil Bypass Factor:.....0.158

Heating Performance

Heating Airflow:.....1020 CFM
 Entering Air Temp:.....70.0 F
 Leaving Air Temp:.....107.2 F
 Electric Heating Capacity:.....12.00 kW

Supply Fan

| | |
|--|------------|
| External Static Pressure:..... | 0.50 in wg |
| Options / Accessories Static Pressure | |
| Electric Heaters:..... | 0.05 in wg |
| Application External Static (ESP + Unit Opts/Acc.):..... | 0.55 in wg |
| Fan RPM:..... | 1465 |
| Fan Power:..... | 0.23 BHP |

NOTE:.....Selected IFM RPM Range: 219 - 2190

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:.....10.4
 Compressor #1 LRA:.....73
 Actual Electric Heater kW:.....12
 Electric Heater FLA:.....33.4

Performance Summary For 3 Ton

Project: RCF Office Expansion
Prepared By:

03/10/2023
11:13AM

| | |
|-----------------------------------|----------------|
| Indoor Fan Motor Type: | MED |
| Indoor Fan Motor FLA (Total): | 5.1 |
| Power Supply MCA: | 49 |
| Power Supply MOCP (Fuse or HACR): | 50 |
| Disconnect Size FLA: | 44 |
| Disconnect Size LRA: | 84 |
| Electrical Convenience Outlet: | None |
| Outdoor Fan [Qty / FLA (ea)]: | 1 / 1.5 |
| Electric Heater Part Number: | 328A |
| Electric Heater Number of Stages: | 1 |

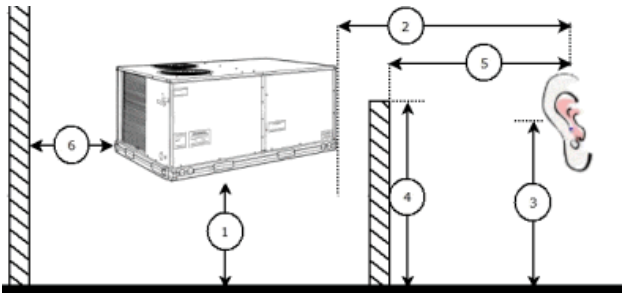
Control Panel SCCR: 5kA RMS at Rated Symmetrical Voltage

Acoustics

Sound Power Levels, db re 10E-12 Watts

| | Discharge | Inlet | Outdoor |
|------------|-----------|-------|---------|
| 63 Hz | 86.9 | 80.6 | 85.6 |
| 125 Hz | 79.1 | 72.3 | 84.7 |
| 250 Hz | 70.0 | 64.3 | 80.5 |
| 500 Hz | 62.2 | 55.6 | 76.0 |
| 1000 Hz | 59.2 | 57.1 | 72.4 |
| 2000 Hz | 55.7 | 48.4 | 68.0 |
| 4000 Hz | 52.9 | 42.3 | 62.8 |
| 8000 Hz | 54.8 | 39.2 | 59.3 |
| A-Weighted | 68.6 | 62.7 | 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 3 Ton

Project: RCF Office Expansion
 Prepared By:

03/10/2023
 11:13AM

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.

