



SUBMITTAL

Project

BCF - Denton, TX 533 - RP

Date

Monday, July 19, 2024

Rev: Changed Quantity for RTU 1-3 to 3

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Project: BCF - Denton, TX 533 - RP
Prepared By:

07/19/2024
05:14AM

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RTU 1-3

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

Unit Report For RTU 1-3

Project: BCF - Denton, TX 533 - RP
 Prepared By:

07/19/2024
 05:14AM

Unit Parameters

Unit Model:.....**48LCEA24J3M6-4S4C0**
 Unit Size:.....**24 (20 Tons)**
 Volts-Phase-Hertz:.....**460-3-60**
 Heating Type:.....**Gas**
 Heat Control:.....**Medium Gas Heat**
 Duct Cfg:.....**Vertical Supply / Vertical Return**
 DX Options:**Three stage cooling capacity control with TXV**
and Humidi-MiZer

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

Unit Length:.....**13' 1.75"**
 Unit Width:.....**7' 2.375"**
 Unit Height:.....**4' 10.5"**
Total Operating Weight:..... 3123 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.

Unit Configuration

Condensate Overflow Switch
 High Static Option - Vertical Models with VFD controller
 Al/Cu - Al/Cu - Louvered Hail Guards
 SystemVu Controller and system building automation
 Enth. Ultra Low Leak EconoMiSer w/ PE (cent) - Vertical Air Only
 Hinged Access Panels and Unpowered Convenience Outlet
 Non-Fused Disconnect
 Standard Packaging
 Humidi-MiZer™ Adaptive Dehumidification System

Warranty Information

1-Year parts
 5-Year compressor parts
 10-Year heat exchanger - Aluminized
 Start-up, First Unit
 Start-up, Each Additional Unit

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

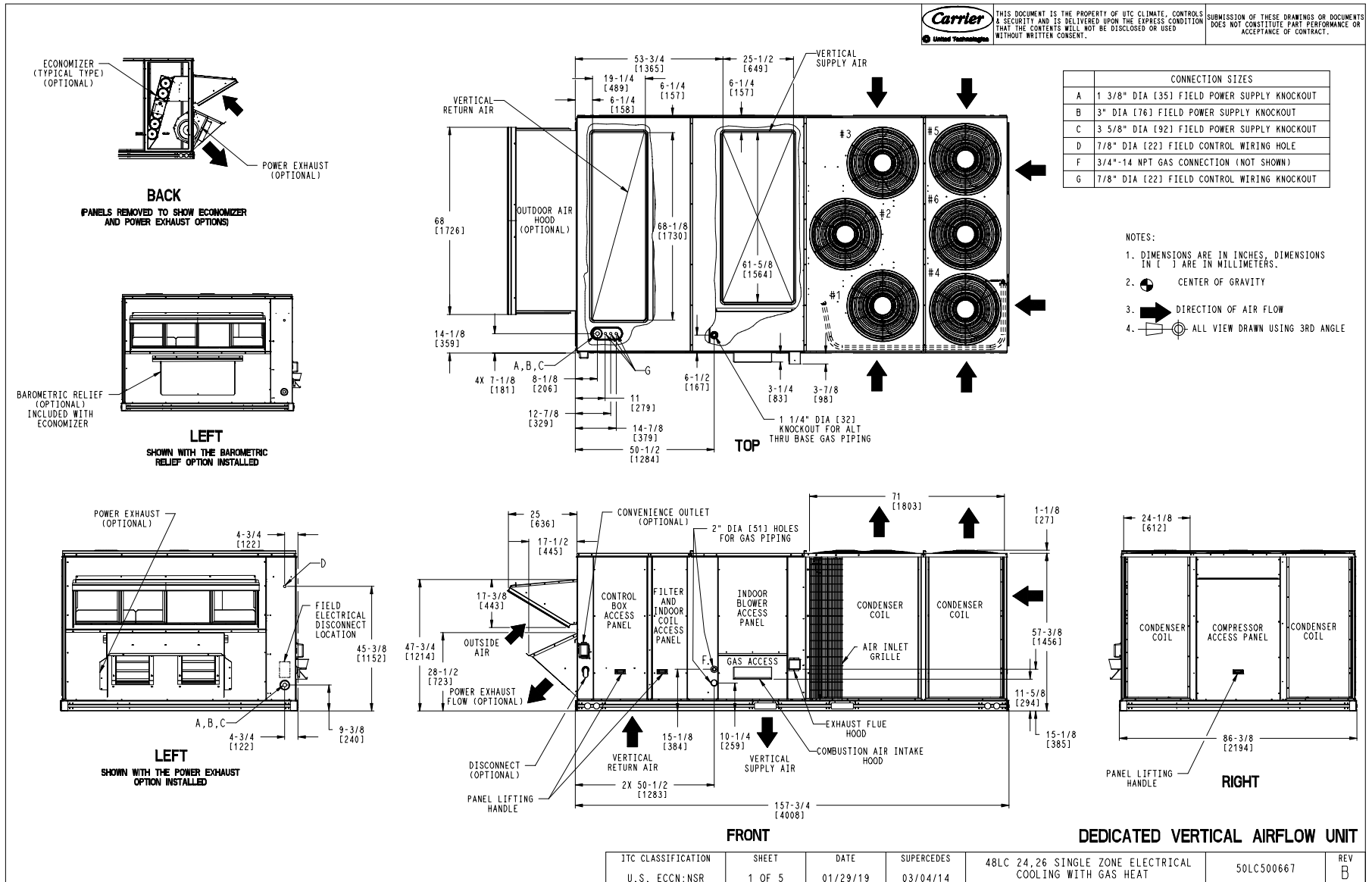
Ordering Information

Part Number	Description	Quantity
48LCEA24J3M6-4S4C0	Rooftop Unit	3
	Base Unit	
	Condensate Overflow Switch	
	High Static Option - Vertical Models with VFD controller	
	Al/Cu - Al/Cu - Louvered Hail Guards	
	Hinged Access Panels and Unpowered Convenience Outlet	
	Non-Fused Disconnect	
	Humidi-MiZer™ Adaptive Dehumidification System	
	SystemVu, Ultra Low Leak Enth.EconoMiSer2, with pwr exhaust-Meets Calif. Title 24 FDD & Leak Rate	

Certified Drawing for RTU 1-3

Project: BCF - Denton, TX 533 - RP
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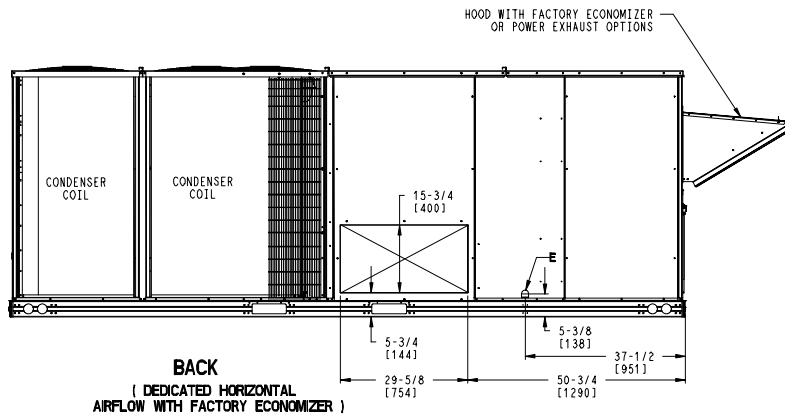
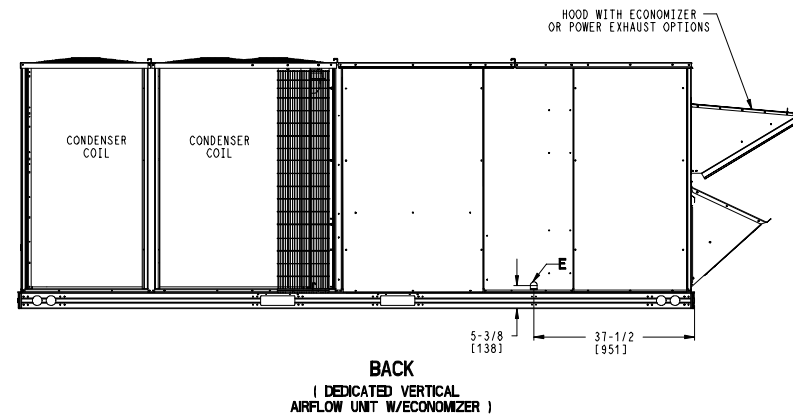
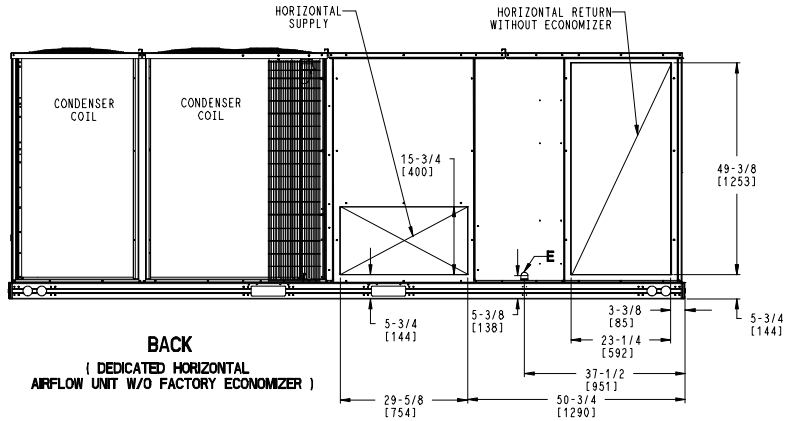
Certified Drawing for RTU 1-3

Project: BCF - Denton, TX 533 - RP
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CONNECTION SIZES	
E	3/4" - 1/4 NPT CONDENSATE DRAIN

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JTC CLASSIFICATION	SHEET	DATE	SUPERCEDES	48LC 24,26 SINGLE ZONE ELECTRICAL COOLING WITH GAS HEAT	50LC500667	REV
U.S. ECCN:NSR	3 OF 5	01/29/19	03/04/14			B

Certified Drawing for RTU 1-3

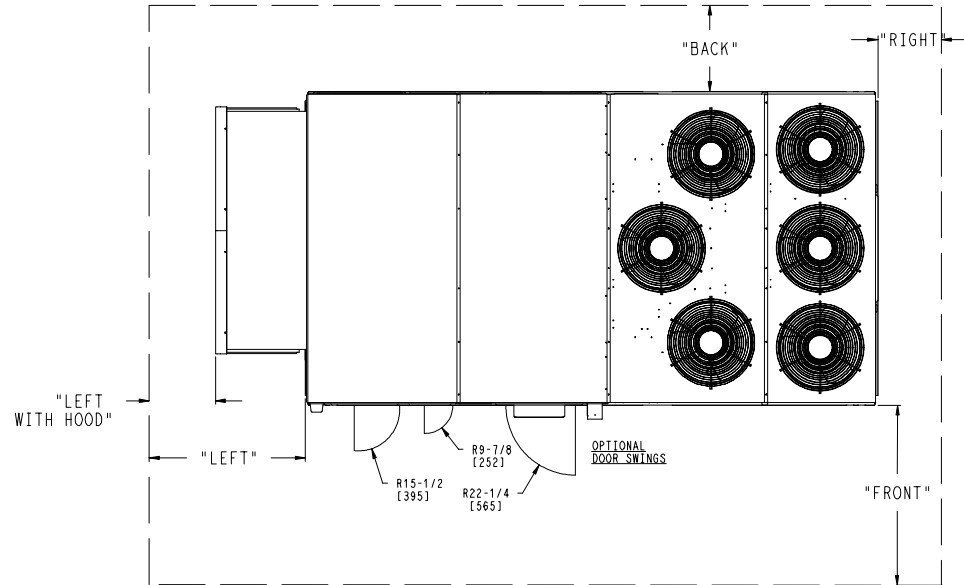
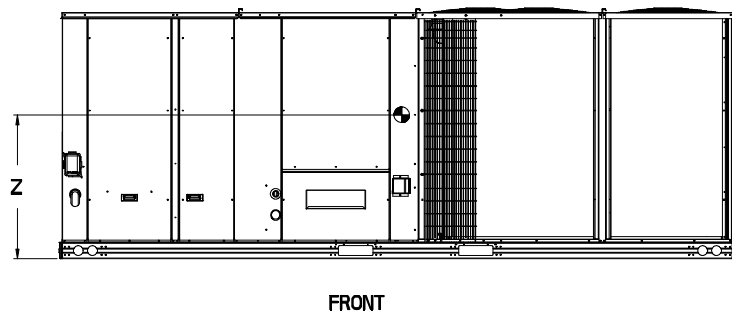
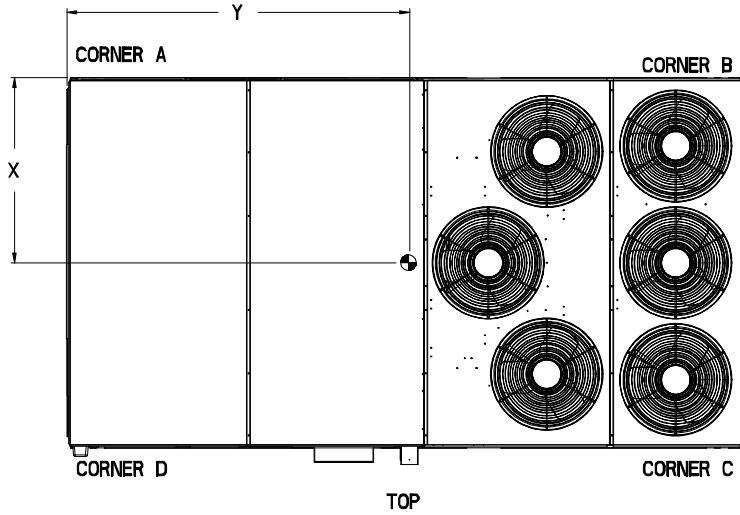
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UNIT	STD UNIT WEIGHT *		CORNER WEIGHT (A)		CORNER WEIGHT (B)		CORNER WEIGHT (C)		CORNER WEIGHT (D)		C.G.					
	LBS.	KG.	LBS.	KG.	LBS.	KG.	LBS.	KG.	LBS.	KG.	X	Y	Z			
48LC24	2347	1067.0	485.0	220.4	568.8	258.5	715.5	325.2	610.1	277.3	48	1/32 [1219.20]	85	1/32 [2159.79]	19	[482.6]
48LC26	2492	1132.6	563.2	256.0	627.7	285.3	702.4	319.3	630.3	286.5	45	1/2 [1155.70]	83	1/32 [2108.99]	19	[482.6]

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

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- NOTES:
- CLEARANCE ABOVE THE UNIT TO BE 72"
 - FOR ALL MINIMUM CLEARANCES LOCAL CODES OR JURISDICTIONS MAY PREVAIL.


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

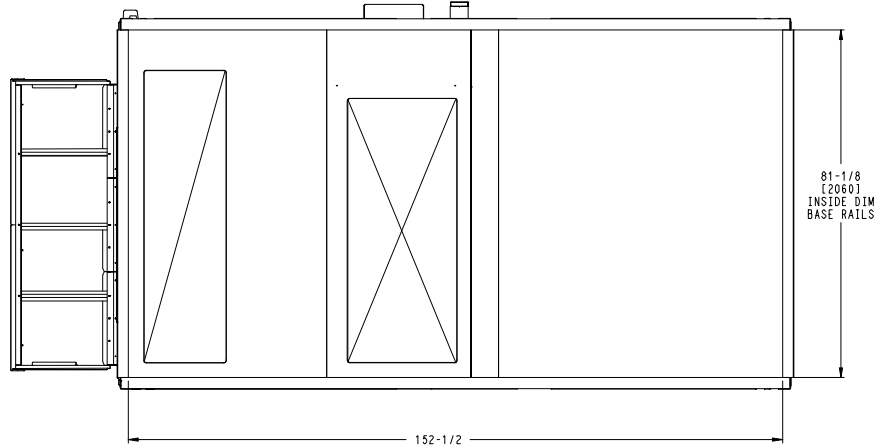
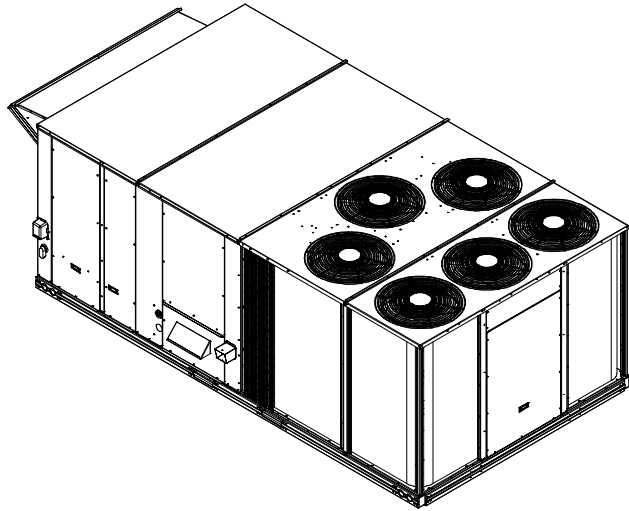
JTC CLASSIFICATION U.S. ECCN:NSR	SHEET 4 OF 5	DATE 01/29/19	SUPERCEDES 03/04/14	48LC 24,26 SINGLE ZONE ELECTRICAL COOLING WITH GAS HEAT	50LC500667	REV B
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Certified Drawing for RTU 1-3

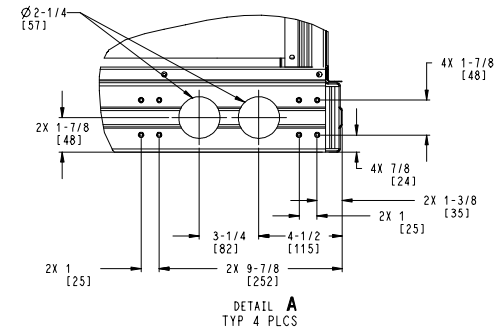
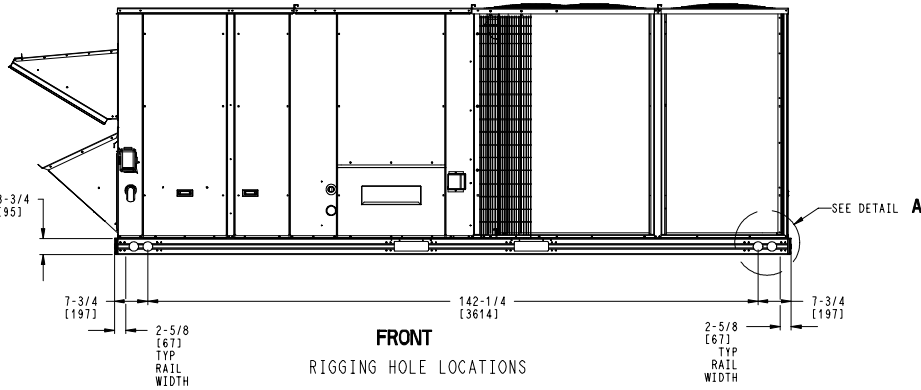
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 United Technologies	THIS DOCUMENT IS THE PROPERTY OF UTC CLIMATE, CONTROLS & SECURITY AND IS DELIVERED UPON THE EXPRESS CONDITION THAT THE CONTENTS WILL NOT BE DISCLOSED OR USED WITHOUT WRITTEN CONSENT.	SUBMISSION OF THESE DRAWINGS OR DOCUMENTS DOES NOT CONSTITUTE PART PERFORMANCE OR ACCEPTANCE OF CONTRACT.
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BOTTOM
INSIDE BASERAIL DIMENSIONS



JTC CLASSIFICATION	SHEET	DATE	SUPERCEDES	48LC 24,26 SINGLE ZONE ELECTRICAL COOLING WITH GAS HEAT	50LC500667	REV
U.S. ECCN:NSR	5 OF 5	01/29/19	03/04/14			B

Performance Summary For RTU 1-3

Project: BCF - Denton, TX 533 - RP
Prepared By:

07/19/2024
05:14AM

Part Number:48LCEA24J3M6-4S4C0

ARI EER: 12.00
IEER (Max Cooling at Normal Cooling Design Mode): 18.0

Base Unit Dimensions

Unit Length: 157.8 in
Unit Width: 86.4 in
Unit Height: 58.5 in

Operating Weight

Base Unit Weight: 2347 lb
Medium Gas Heat: 90 lb
Three stage cooling capacity control with TXV and Humidi-MiZer: 120 lb
High Static Option - Vertical Models with VFD controller: 20 lb
Al/Cu - Al/Cu - Louvered Hail Guards: 150 lb
Enthy. Ultra Low Leak EconoMi\$er w/ PE (cent) - Vertical Air Only: 371 lb
Hinged Access Panels and Unpowered Convenience Outlet: 10 lb
Non-Fused Disconnect: 15 lb

Total Operating Weight: 3123 lb

Unit

Unit Voltage-Phase-Hertz: 460-3-60
Air Discharge: Vertical
Fan Drive Type: Belt Drive
Actual Airflow: 8000 CFM
Site Altitude: 860 ft

Cooling Performance

Condenser Entering Air DB: 95.0 F
Evaporator Entering Air DB: 80.0 F
Evaporator Entering Air WB: 67.0 F
Evaporator Entering Air Enthalpy: 31.94 BTU/lb
Evaporator Leaving Air DB: 57.4 F
Evaporator Leaving Air WB: 56.9 F
Evaporator Leaving Air Enthalpy: 24.69 BTU/lb
Gross Cooling Capacity: 252.84 MBH
Gross Sensible Capacity: 188.88 MBH
Compressor Power Input: 16.87 kW
Coil Bypass Factor: 0.071

Heating Performance

Heating Airflow: 8000 CFM
Entering Air Temp: 70.0 F
Leaving Air Temp: 100.0 F
Gas Heating Input Capacity: 248.0 / 310.0 MBH
Gas Heating Output Capacity: 200.0 / 251.0 MBH
Temperature Rise: 30.0 F
Thermal Efficiency (%): 81.0

Supply Fan

External Static Pressure: 1.00 in wg
Options / Accessories Static Pressure
Humidi-MiZer Dehumidification System: 0.06 in wg
Economizer: 0.08 in wg
Application External Static (ESP + Unit Opts/Acc.): 1.14 in wg
Fan RPM: 1052
Fan Power: 5.88 BHP
NOTE: Selected IFM RPM Range: 1049 - 1291

Performance Summary For RTU 1-3

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

Power Exhaust

Return Duct Static: **0.41** in wg
 Max. Air to Exhaust: **4565** CFM

Electrical Data

Voltage Range: **414 - 506**
 Compressor #1 RLA: **14.8**
 Compressor #1 LRA: **95**
 Compressor #2 RLA: **18**
 Compressor #2 LRA: **125**
 Indoor Fan Motor Type: **HIGH**
 Indoor Fan Motor FLA (Total): **16.9**
 Combustion Fan Motor FLA (ea): **0.3**
 Power Supply MCA: **70**
 Power Supply MOCP (Fuse or HACR): **80**
 Disconnect Size FLA: **75**
 Disconnect Size LRA: **347**
 Electrical Convenience Outlet: **None**
 Power Exhaust [Motor Qty / FLA(ea motor)]: **2 / 3.1**
 Outdoor Fan [Qty / FLA (ea)]: **6 / 1.6**

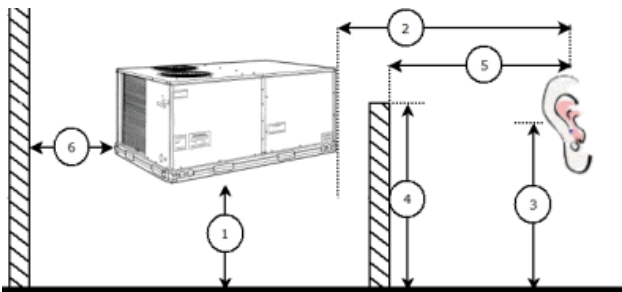
Control Panel SCCR: 5kA RMS at Rated Symmetrical Voltage

Acoustics

Sound Power Levels, db re 10E-12 Watts

	Discharge	Inlet	Outdoor
63 Hz	94.4	94.6	97.1
125 Hz	88.9	78.0	88.3
250 Hz	81.5	71.7	84.4
500 Hz	80.8	63.9	83.3
1000 Hz	75.5	58.6	80.7
2000 Hz	73.7	54.5	77.4
4000 Hz	73.3	48.0	73.4
8000 Hz	65.3	36.6	67.3
A-Weighted	83.0	71.1	86.0

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

Performance Summary For RTU 1-3

Project: BCF - Denton, TX 533 - RP
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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	97.1	88.3	84.4	83.3	80.7	77.4	73.4	67.3	98.1 Lw
B	70.9	72.2	75.8	80.1	80.7	78.6	74.4	66.2	85.9 LwA
C	64.7	55.9	52.0	50.9	48.3	45.0	41.0	34.9	65.7 Lp
D	38.5	39.8	43.4	47.7	48.3	46.2	42.0	33.8	53.5 LpA

Legend

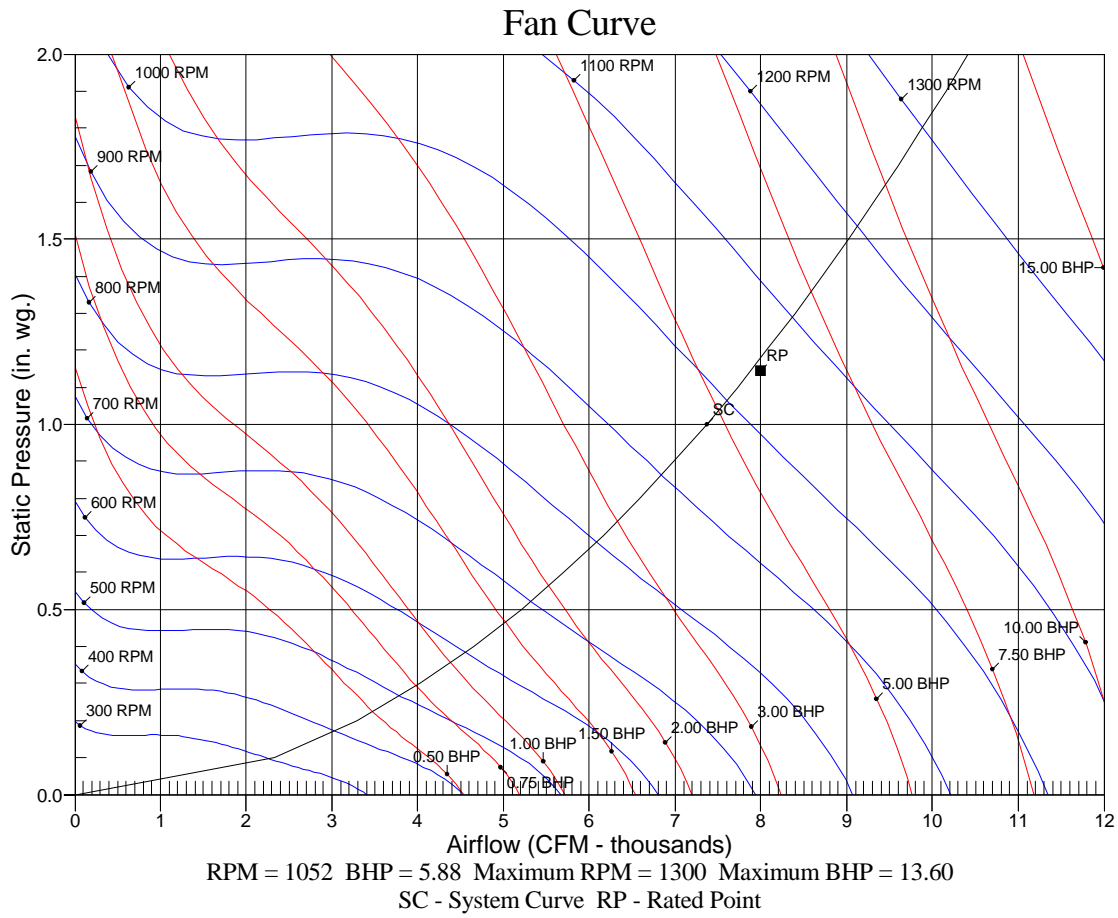
- A Sound Power Levels at Unit's Acoustic Center, Lw
- B A-Weighted Sound Power Levels at Unit's Acoustic Center, LwA
- C Sound Pressure Levels at Specific Distance from Unit, Lp
- D A-Weighted Sound Pressure Levels at Specific Distance from Unit, LpA

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.

Performance Summary For RTU 1-3

Project: BCF - Denton, TX 533 - RP
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07/19/2024
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RTU 4

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

Unit Report For RTU 4

Project: BCF - Denton, TX 533 - RP
 Prepared By:

07/19/2024
 05:14AM

Unit Parameters

Unit Model:..... **48LCE014J3M6-4S5C0**
 Unit Size:..... **14 (12.5 Tons)**
 Volts-Phase-Hertz:..... **460-3-60**
 Heating Type:..... **Gas**
 Heat Control:..... **Medium Gas Heat**
 Duct Cfg:..... **Vertical Supply / Vertical Return**
 DX Options:**Three stage cooling capacity control with TXV**

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

Unit Length:..... **10' 7.875"**
 Unit Width:..... **7' 2.375"**
 Unit Height: **4' 2.5"**
Total Operating Weight:..... 2440 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.

Unit Configuration

Condensate Overflow Switch
 High Static Option - Vertical Models with VFD controller
 Al/Cu - Al/Cu - Louvered Hail Guards
 SystemVu Controller and system building automation
 Enthly. Ultra Low Leak EconoMi\$er w/ PE (cent) - Vertical Air Only
 Hinged Access Panels and Powered Convenience Outlet
 Non-Fused Disconnect
 Standard Packaging

Warranty Information

1-Year parts
 5-Year compressor parts
 10-Year heat exchanger - Aluminized
 Start-up, First Unit

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

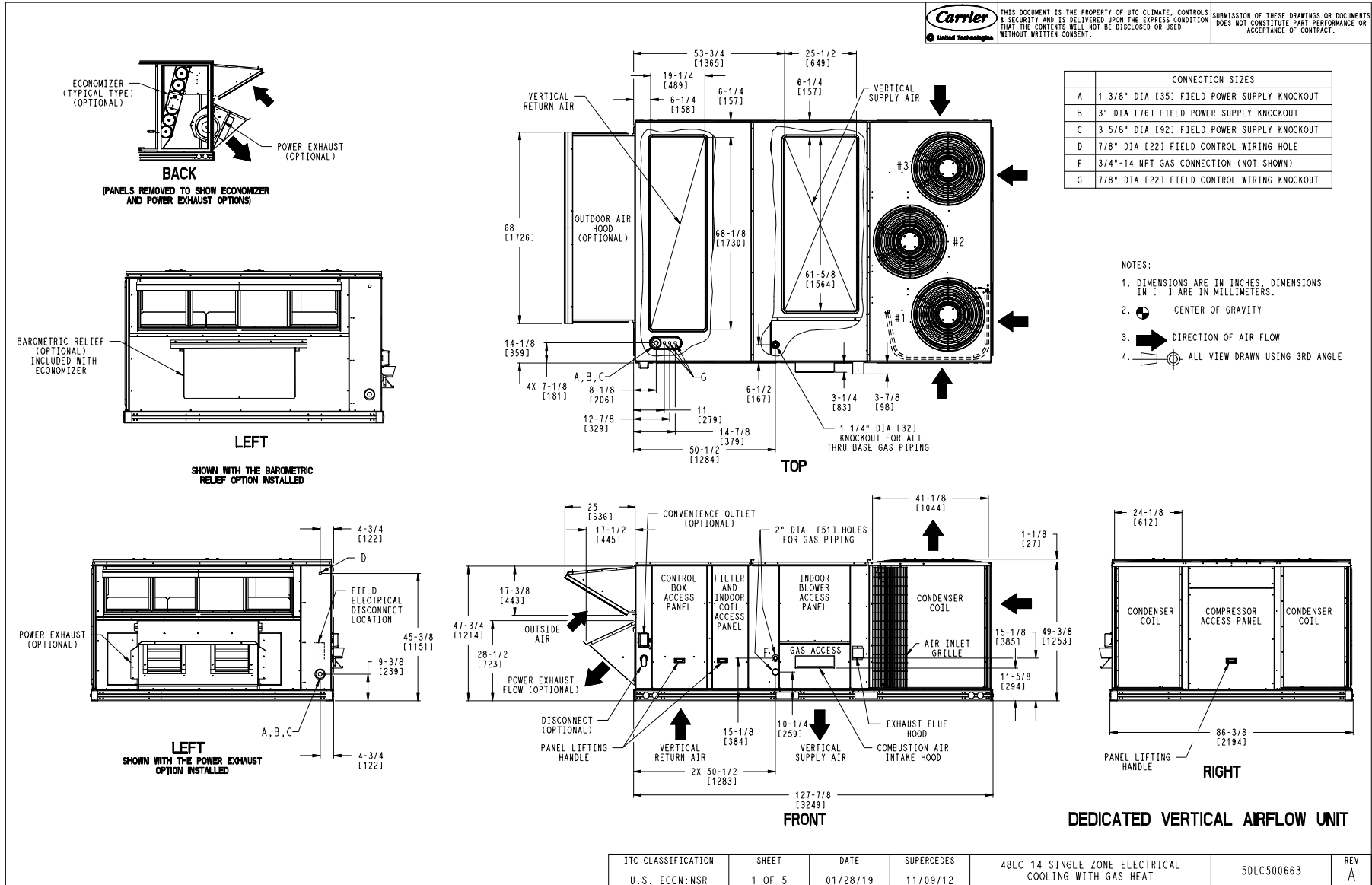
Ordering Information

Part Number	Description	Quantity
48LCE014J3M6-4S5C0	Rooftop Unit	1
	Base Unit	
	Condensate Overflow Switch	
	High Static Option - Vertical Models with VFD controller	
	Al/Cu - Al/Cu - Louvered Hail Guards	
	Hinged Access Panels and Powered Convenience Outlet	
	Non-Fused Disconnect	
	SystemVu, Ultra Low Leak Enthly.EconoMi\$er2, with pwr exhaust-Meets Calif. Title 24 FDD & Leak Rate	

Certified Drawing for RTU 4

Project: BCF - Denton, TX 533 - RP
Prepared By:

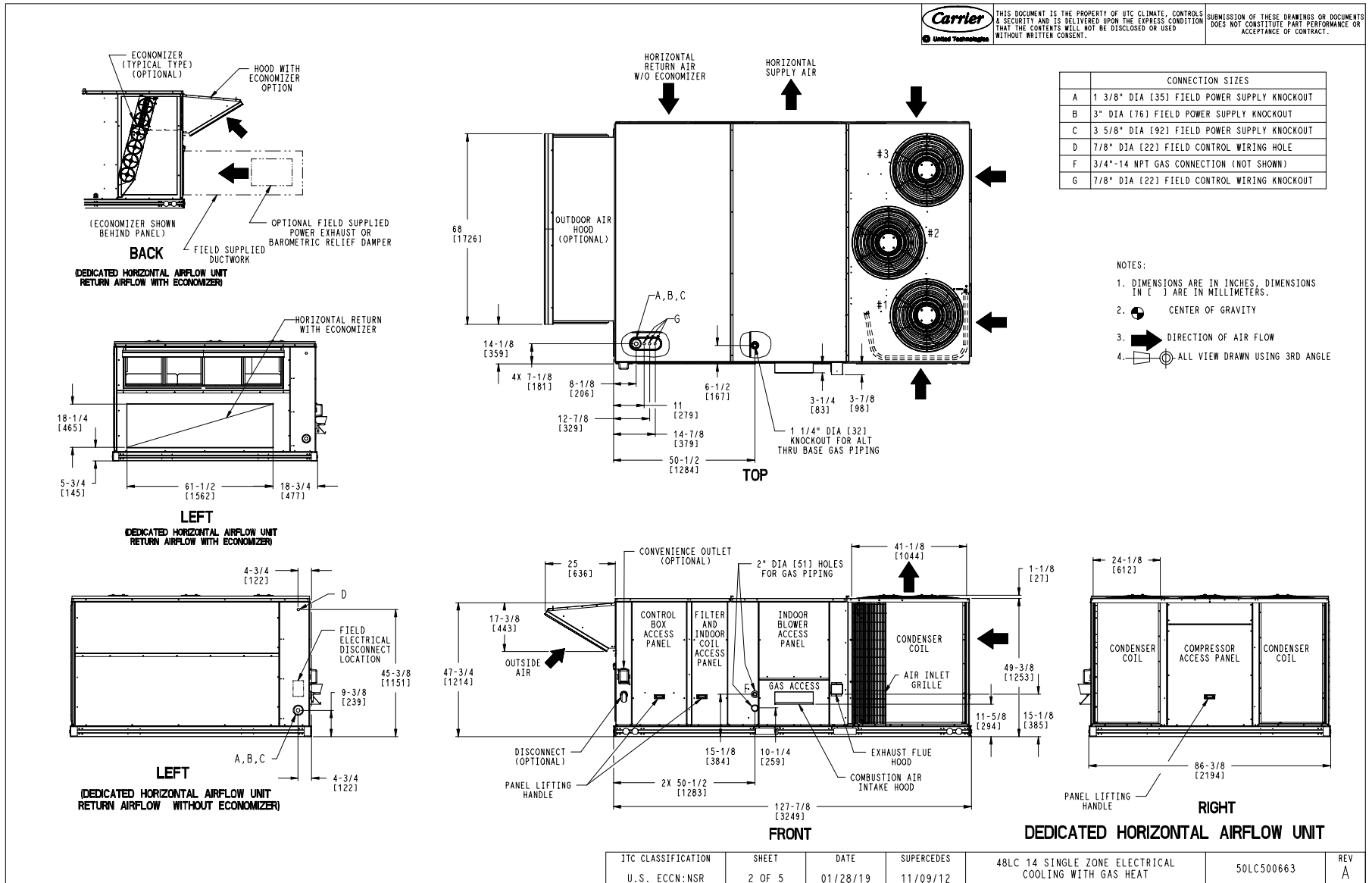
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Certified Drawing for RTU 4

Project: BCF - Denton, TX 533 - RP
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Certified Drawing for RTU 4

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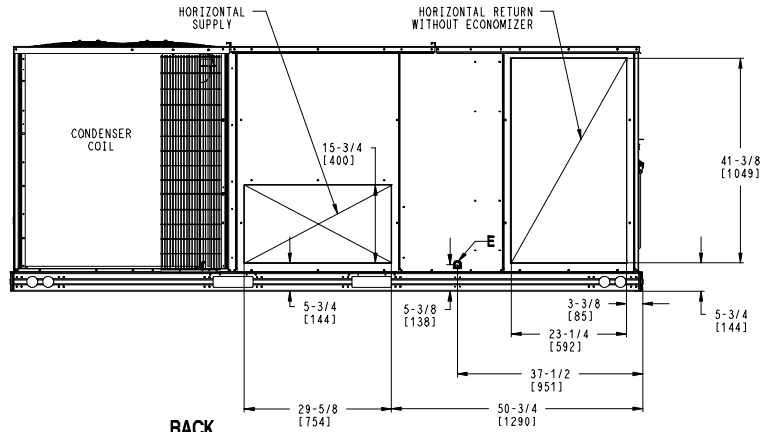
07/19/2024
 05:14AM

CONNECTION SIZES	
E	3/4"-14 NPT CONDENSATE DRAIN

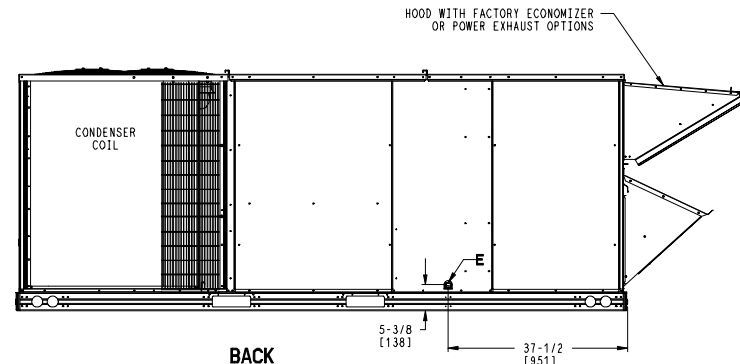


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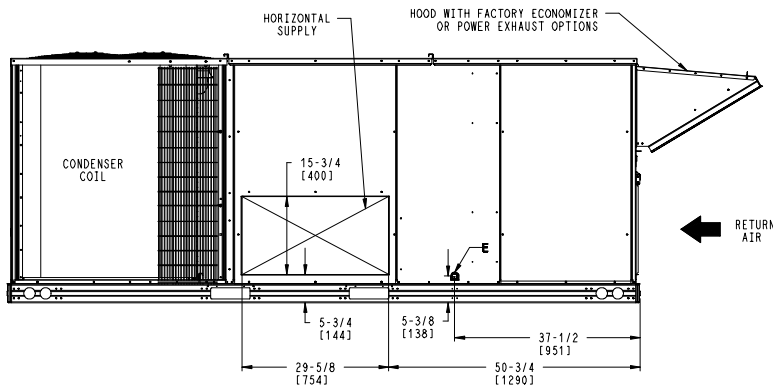
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BACK
 (DEDICATED HORIZONTAL AIRFLOW UNIT W/O FACTORY ECONOMIZER)



BACK
 (DEDICATED VERTICAL AIRFLOW UNIT W/ECONOMIZER)



BACK
 (DEDICATED HORIZONTAL AIRFLOW WITH FACTORY ECONOMIZER)

JTC CLASSIFICATION	SHEET	DATE	SUPERCEDES	48LC 14 SINGLE ZONE ELECTRICAL COOLING WITH GAS HEAT	50LC500663	REV
U.S. ECCN:NSR	3 OF 5	01/28/19	11/09/12			A

Certified Drawing for RTU 4

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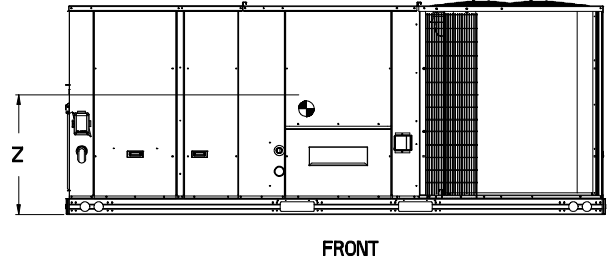
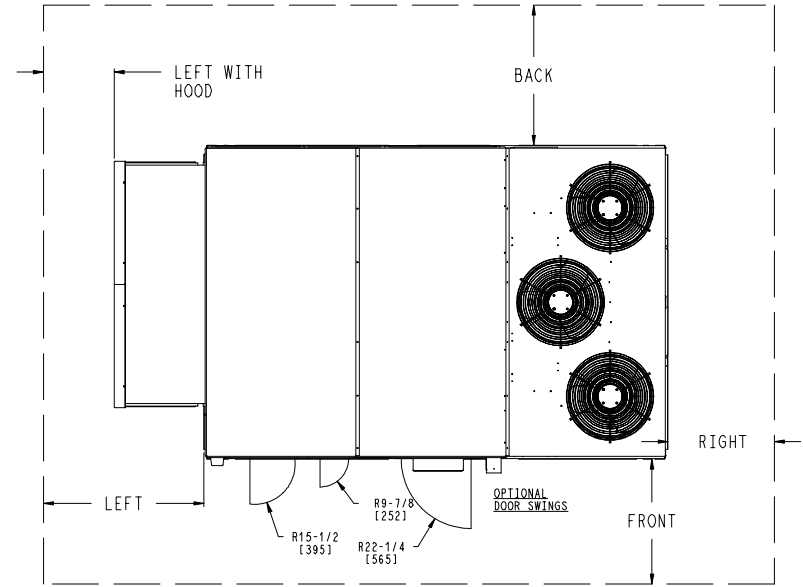
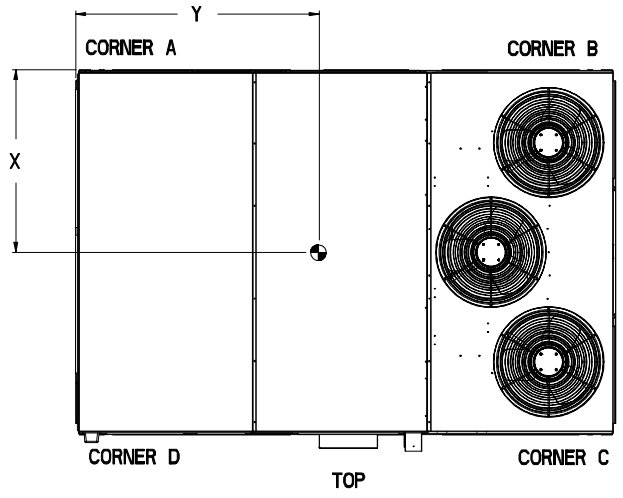
UNIT	BASE UNIT OPERATING WEIGHT *		CORNER WEIGHT (A)		CORNER WEIGHT (B)		CORNER WEIGHT (C)		CORNER WEIGHT (D)		C.G.		
	LBS.	KG.	LBS.	KG.	LBS.	KG.	LBS.	KG.	LBS.	KG.	X	Y	Z
48LC14	1853	842	457	208	532	242	481	218	413	188	40 29/32 [1039]	68 21/32 [1743]	16 1/2 [419]



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* BASE UNIT WEIGHT IS WITH LOW GAS HEAT, STD ID FAN MOTOR AND WITHOUT PACKAGING. FOR OTHER OPTIONS AND ACCESSORIES REFER TO THE PRODUCT DATA CATALOG.



- NOTES:
- CLEARANCE ABOVE THE UNIT TO BE 72"
 - FOR ALL MINIMUM CLEARANCES LOCAL CODES OR JURISDICTIONS MAY PREVAIL.

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

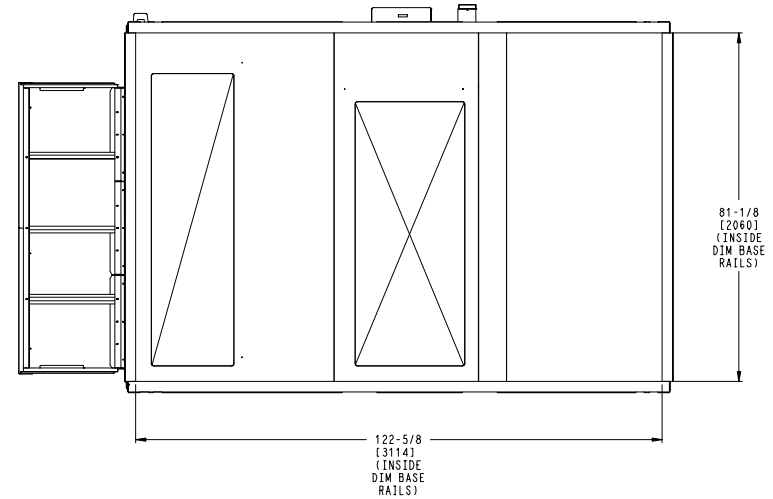
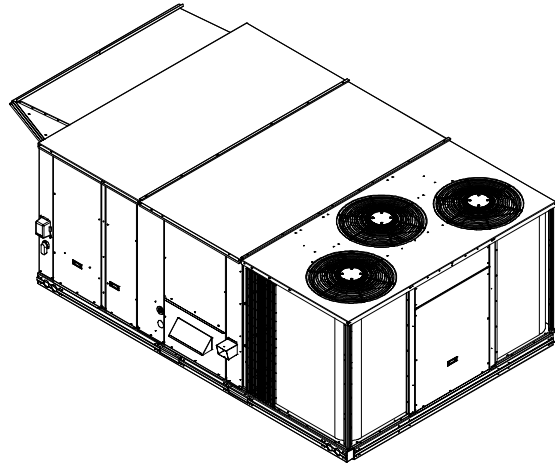
JTC CLASSIFICATION U.S. ECCN: NSR	SHEET 4 OF 5	DATE 01/28/19	SUPERCEDES 11/09/12	48LC 14 SINGLE ZONE ELECTRICAL COOLING WITH GAS HEAT	50LC500663	REV A
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Certified Drawing for RTU 4

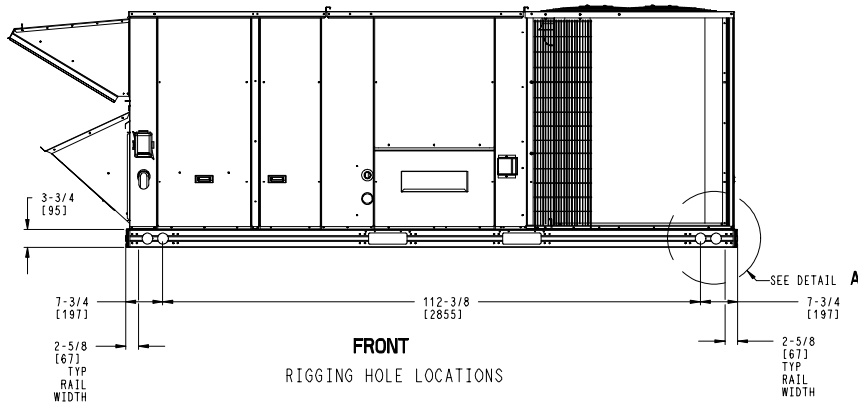
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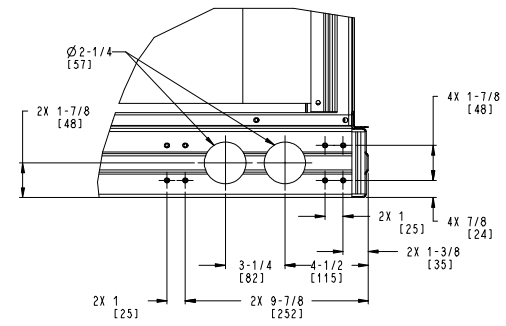
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BOTTOM
INSIDE BASERAIL DIMENSIONS



FRONT
RIGGING HOLE LOCATIONS



DETAIL A
TYP 4 PLCS

JTC CLASSIFICATION	SHEET	DATE	SUPERCEDES	48LC 14 SINGLE ZONE ELECTRICAL COOLING WITH GAS HEAT	50LC500663	REV
U.S. ECCN:NSR	5 OF 5	01/28/19	11/09/12			A

Performance Summary For RTU 4

Project: BCF - Denton, TX 533 - RP
Prepared By:

07/19/2024
05:14AM

Part Number:48LCE014J3M6-4S5C0

ARI EER: 12.40
IEER: 19.1

Base Unit Dimensions

Unit Length: 127.9 in
Unit Width: 86.4 in
Unit Height: 50.5 in

Operating Weight

Base Unit Weight: 1853 lb
Medium Gas Heat: 90 lb
High Static Option - Vertical Models with VFD controller: 11 lb
Al/Cu - Al/Cu - Louvered Hail Guards: 60 lb
Enthy. Ultra Low Leak EconoMi\$er w/ PE (cent) - Vertical Air Only: 371 lb
Hinged Access Panels and Powered Convenience Outlet: 40 lb
Non-Fused Disconnect: 15 lb

Total Operating Weight: 2440 lb

Unit

Unit Voltage-Phase-Hertz: 460-3-60
Air Discharge: Vertical
Fan Drive Type: Belt Drive
Actual Airflow: 5000 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: 58.5 F
Evaporator Leaving Air WB: 57.6 F
Evaporator Leaving Air Enthalpy: 24.76 BTU/lb
Gross Cooling Capacity: 150.34 MBH
Gross Sensible Capacity: 116.26 MBH
Compressor Power Input: 10.56 kW
Coil Bypass Factor: 0.042

Heating Performance

Heating Airflow: 5000 CFM
Entering Air Temp: 70.0 F
Leaving Air Temp: 103.0 F
Gas Heating Input Capacity: 176.0 / 220.0 MBH
Gas Heating Output Capacity: 142.0 / 178.0 MBH
Temperature Rise: 33.0 F
Thermal Efficiency (%): 81.0

Supply Fan

External Static Pressure: 0.50 in wg
Options / Accessories Static Pressure
Economizer: 0.05 in wg
Application External Static (ESP + Unit Opts/Acc.): 0.55 in wg
Fan RPM: 675
Fan Power: 1.41 BHP
NOTE: The Selected Indoor Fan Motor requires a Field-Supplied Drive (RPM Range: 782 - 963).

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

Performance Summary For RTU 4

Project: BCF - Denton, TX 533 - RP
 Prepared By:

07/19/2024
 05:14AM

Power Exhaust

Return Duct Static: **0.40** in wg
 Max. Air to Exhaust: **4590** CFM

Electrical Data

Voltage Range: **414 - 506**
 Compressor #1 RLA: **9.6**
 Compressor #1 LRA: **62**
 Compressor #2 RLA: **11.2**
 Compressor #2 LRA: **75**
 Indoor Fan Motor Type: **HIGH**
 Indoor Fan Motor FLA (Total): **9.7**
 Combustion Fan Motor FLA (ea): **0.3**
 Power Supply MCA: **45.6**
 Power Supply MOCP (Fuse or HACR): **50**
 Disconnect Size FLA: **49**
 Disconnect Size LRA: **200**
 Electrical Convenience Outlet FLA (based on unit line voltage): **2.2**
 Power Exhaust [Kit Qty / FLA(ea kit)]: **2 / 3.1**
 Outdoor Fan [Qty / FLA (ea)]: **3 / 1.3**
 NOTE: Convenience outlet must be field connected to the line/load side of the unit disconnect per local code.

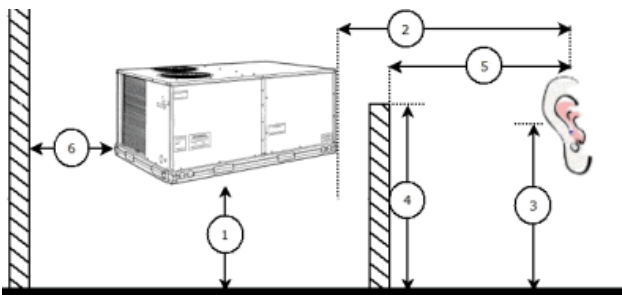
Control Panel SCCR: 5kA RMS at Rated Symmetrical Voltage

Acoustics

Sound Power Levels, db re 10E-12 Watts

	Discharge	Inlet	Outdoor
63 Hz	86.4	85.9	92.2
125 Hz	79.2	72.0	83.9
250 Hz	71.7	66.7	80.4
500 Hz	70.9	59.8	81.8
1000 Hz	64.4	53.2	78.7
2000 Hz	63.4	48.0	76.5
4000 Hz	64.3	44.1	72.2
8000 Hz	53.4	33.9	65.4
A-Weighted	73.1	64.4	84.0

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

Performance Summary For RTU 4

Project: BCF - Denton, TX 533 - RP
 Prepared By:

07/19/2024
 05:14AM

6. Horizontal distance from unit to obstruction:**0.0** ft

Detailed Acoustics Information

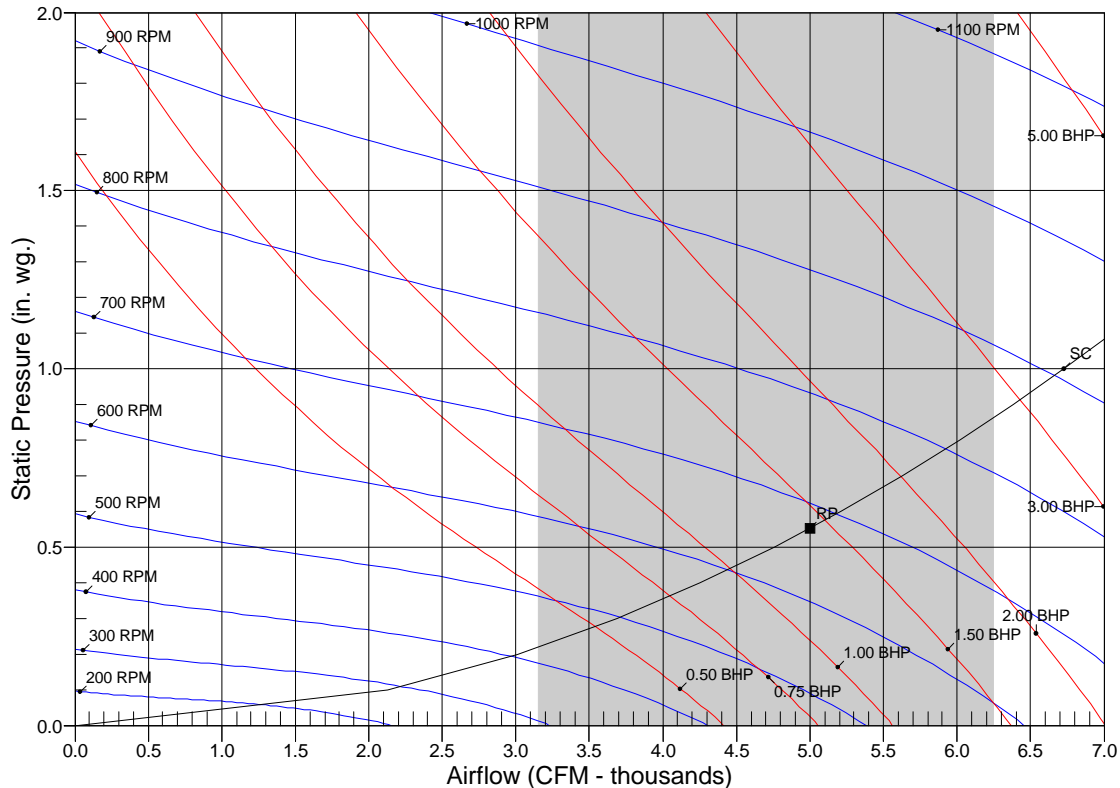
Octave Band Center Freq. Hz	63	125	250	500	1k	2k	4k	8k	Overall
A	92.2	83.9	80.4	81.8	78.7	76.5	72.2	65.4	93.6 Lw
B	66.0	67.8	71.8	78.6	78.7	77.7	73.2	64.3	84.1 LwA
C	59.8	51.5	48.0	49.4	46.3	44.1	39.8	33.0	61.2 Lp
D	33.6	35.4	39.4	46.2	46.3	45.3	40.8	31.9	51.7 LpA

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.

Fan Curve



RPM = 675 BHP = 1.41 Maximum RPM = 1175 Maximum BHP = 9.90

Note: Please contact application engineering for selections outside the shaded region.

SC - System Curve RP - Rated Point

RTU 5

Project: BCF - Denton, TX 533 - RP
Prepared By:

07/19/2024
05:14AM

RTU 5

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

Unit Report For RTU 5

Project: BCF - Denton, TX 533 - RP
 Prepared By:

07/19/2024
 05:14AM

Unit Parameters

Unit Model:..... **48LCE008J3M6-4R5F0**
 Unit Size:.....**08 (7.5 Tons)**
 Volts-Phase-Hertz: **460-3-60**
 Heating Type:.....**Gas**
 Heat Control:..... **Medium Gas Heat**
 Duct Cfg: **Vertical Supply / Vertical Return**
 DX Options:**Three stage cooling capacity control with TXV**

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

Unit Length:.....**9' 7.875"**
 Unit Width:.....**5' 3.375"**
 Unit Height:**4' 10.75"**
Total Operating Weight:..... 1971 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.

Unit Configuration

Condensate Overflow Switch
 High Static Belt Drive with VFD Controller
 Al/Cu - Al/Cu - Louvered Hail Guards
 SystemVu Unit Controller and system building automation
 Ultra LOW LEAK Enthalpy EconoMi\$er with barometric relief
 Hinged Access Panels and Powered Convenience Outlet
 Non-Fused Disconnect and Thru-The-Base Connections
 Standard Packaging

Warranty Information

1-Year parts
 5-Year compressor parts
 10-Year heat exchanger - Aluminized
 Start-up, First Unit

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

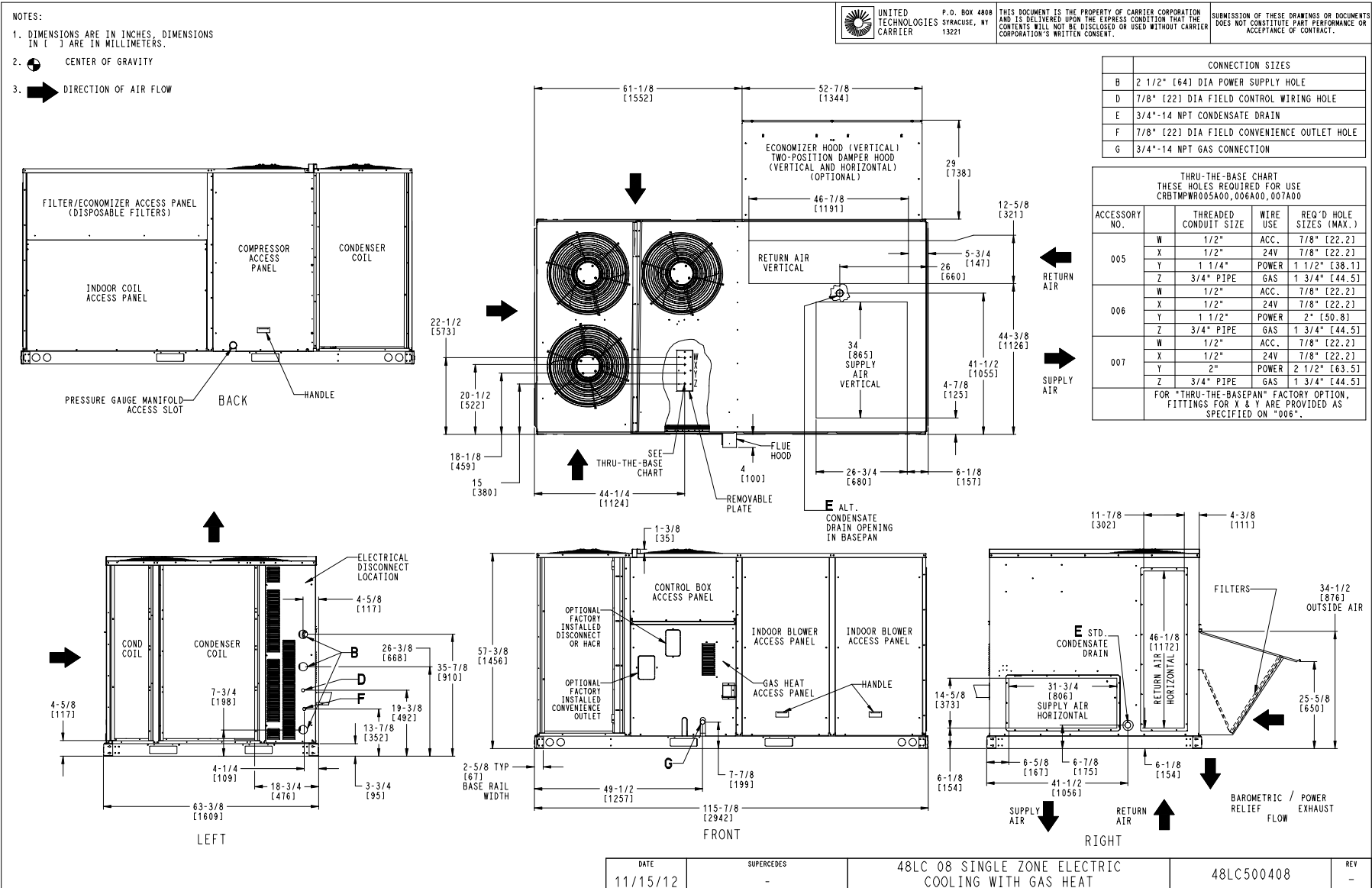
Ordering Information

Part Number	Description	Quantity
48LCE008J3M6-4R5F0	Rooftop Unit	1
	Base Unit	
	Condensate Overflow Switch	
	High Static Belt Drive with VFD Controller	
	Al/Cu - Al/Cu - Louvered Hail Guards	
	Hinged Access Panels and Powered Convenience Outlet	
	Non-Fused Disconnect and Thru-The-Base Connections	
	SystemVu, Ultra Low Leak Enty EconoMi\$er2 with baro relief. Meets Calif. Title 24 FDD & Leak Rates	
Field Installed Accessories		
CRPWREXH081A00	Power Exhaust System	1
CRPECONV007B00	Hinged Access Door	1

Certified Drawing for RTU 5

Project: BCF - Denton, TX 533 - RP
Prepared By:

07/19/2024
05:14AM



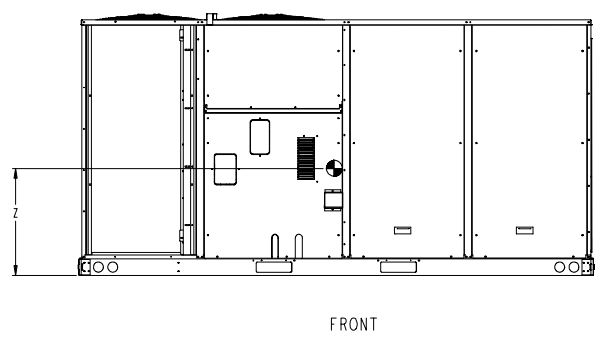
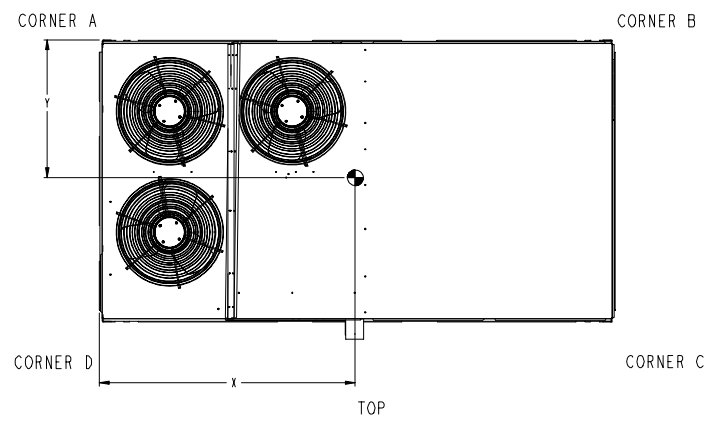
Certified Drawing for RTU 5

Project: BCF - Denton, TX 533 - RP
 Prepared By:

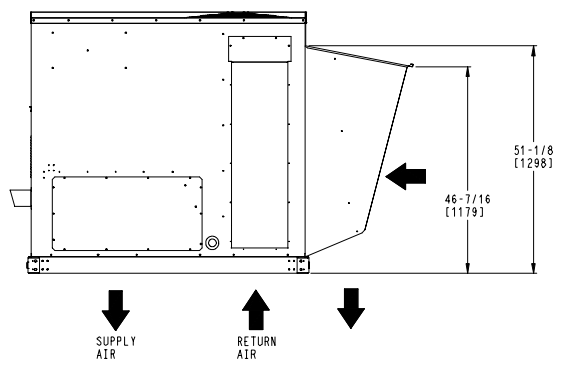
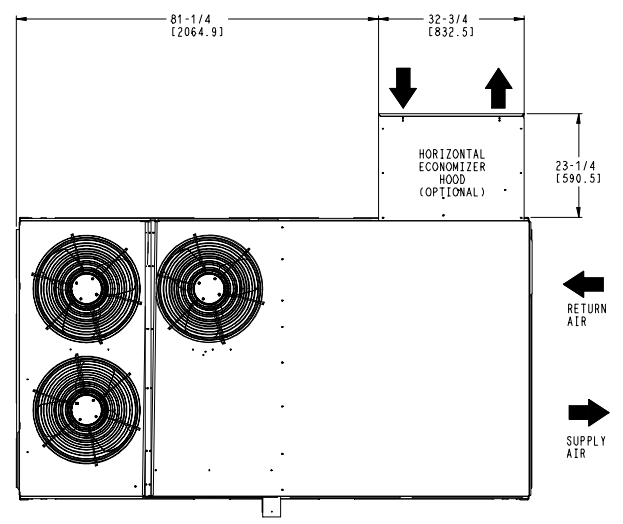
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UNIT	STD UNIT WEIGHT		CORNER WEIGHT (A)		CORNER WEIGHT (B)		CORNER WEIGHT (C)		CORNER WEIGHT (D)		C.G.					
	LBS.	KG.	LBS.	KG.	LBS.	KG.	LBS.	KG.	LBS.	KG.	X	Y	Z			
48LC 08	1606	728	426	193	415	188	377	171	387	176	57	11448	33	838	20 5/8	15251

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



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HORIZONTAL ECONOMIZER

DATE	SUPERCEDES	DESCRIPTION	REV
11/15/12	-	48LC 08 SINGLE ZONE ELECTRIC COOLING WITH GAS HEAT	48LC500408

Certified Drawing for RTU 5

Project: BCF - Denton, TX 533 - RP
 Prepared By:

07/19/2024
 05:14AM

Service Clearance

C1057B

LOCATION	DIMENSION	CONDITION
A	48-in (1219 mm)	• Unit disconnect is mounted on panel
	18-in (457 mm)	• No disconnect, convenience outlet option • Recommended service clearance
	12-in (305 mm)	• Minimum clearance
B	42-in (1067 mm)	• Surface behind servicer is grounded (e.g., metal, masonry wall)
	36-in (914 mm)	• Surface behind servicer is electrically non-conductive (e.g., wood, fiberglass)
	Special	• Check for sources of flue products within 10-ft of unit fresh air intake hood
C	36-in (914 mm)	• Side condensate drain is used
	18-in (457 mm)	• Minimum clearance
D	48-in (1219 mm)	• No flue discharge accessory installed, surface is combustible material
	42-in (1067 mm)	• Surface behind servicer is grounded (e.g., metal, masonry wall, another unit)
	36-in (914 mm)	• Surface behind servicer is electrically non-conductive (e.g., wood, fiberglass)
	Special	• Check for adjacent units or building fresh air intakes within 10-ft of this unit's flue outlet

NOTE: Unit not designed to have overhead obstruction. Contact Application Engineering for guidance on any application planning overhead obstruction or vertical clearances.

Chassis 5

Performance Summary For RTU 5

Project: BCF - Denton, TX 533 - RP
 Prepared By:

07/19/2024
 05:14AM

Part Number:48LCE008J3M6-4R5F0

ARI EER: **12.80**
 IEER: **19.0**

Base Unit Dimensions

Unit Length: **115.9** in
 Unit Width: **63.4** in
 Unit Height: **58.8** in

Operating Weight

Base Unit Weight: **1606** lb
 Medium Gas Heat: **28** lb
 High Static Belt Drive with VFD Controller: **45** lb
 Al/Cu - Al/Cu - Louvered Hail Guards: **45** lb
 Ultra LOW LEAK Enthalpy EconoMi\$er with barometric relief: **103** lb
 Hinged Access Panels and Powered Convenience Outlet: **40** lb
 Non-Fused Disconnect and Thru-The-Base Connections: **19** lb

Accessories

Power Exhaust System: **85** lb

 Total Operating Weight: **1971** lb

Unit

Unit Voltage-Phase-Hertz: **460-3-60**
 Air Discharge: **Vertical**
 Fan Drive Type: **Belt Drive**
 Actual Airflow: **3000** 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: **58.3** F
 Evaporator Leaving Air WB: **57.2** F
 Evaporator Leaving Air Enthalpy: **24.53** BTU/lb
 Gross Cooling Capacity: **93.32** MBH
 Gross Sensible Capacity: **70.26** MBH
 Compressor Power Input: **5.79** kW
 Coil Bypass Factor: **0.012**

Heating Performance

Heating Airflow: **3000** CFM
 Entering Air Temp: **70.0** F
 Leaving Air Temp: **115.1** F
 Gas Heating Input Capacity: **144.0 / 180.0** MBH
 Gas Heating Output Capacity: **118.0 / 146.0** MBH
 Temperature Rise: **45.1** F
 Thermal Efficiency (%): **81.0**

Supply Fan

External Static Pressure: **1.00** in wg
 Options / Accessories Static Pressure
 Economizer: **0.01** in wg
 Application External Static (ESP + Unit Opts/Acc.): **1.01** in wg
 Fan RPM: **724**
 Fan Power: **1.79** BHP
 NOTE: **Selected IFM RPM Range: 710 - 879**

Performance Summary For RTU 5

Project: BCF - Denton, TX 533 - RP
 Prepared By:

07/19/2024
 05:14AM

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
 Max. Air To Exhaust: **2850** CFM

Electrical Data

Voltage Range: **414 - 506**
 Compressor #1 RLA: **6**
 Compressor #1 LRA: **44**
 Compressor #2 RLA: **6.2**
 Compressor #2 LRA: **41**
 Indoor Fan Motor Type: **HIGH**
 Indoor Fan Motor FLA (Total): **4.9**
 Combustion Fan Motor FLA (ea): **0.25**
 Power Supply MCA: **29**
 Power Supply MOCP (Fuse or HACR): **30**
 Disconnect Size FLA: **30**
 Disconnect Size LRA: **134**
 Electrical Convenience Outlet FLA (based on unit line voltage): **2.2**
 Power Exhaust [Kit Qty / FLA (ea kit)]: **1 / 1.8**
 Outdoor Fan [Qty / FLA (ea)]: **3 / 1.8**
 NOTE: Convenience outlet must be field connected to the line/load side of the unit disconnect per local code.

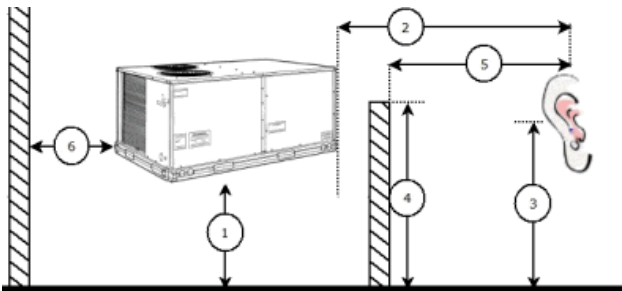
Control Panel SCCR: 5kA RMS at Rated Symmetrical Voltage

Acoustics

Sound Power Levels, db re 10E-12 Watts

	Discharge	Inlet	Outdoor
63 Hz	97.9	95.1	89.3
125 Hz	91.7	86.2	86.0
250 Hz	77.7	72.5	82.9
500 Hz	70.7	66.1	80.7
1000 Hz	67.1	63.5	78.5
2000 Hz	65.6	58.7	73.6
4000 Hz	67.7	58.4	69.6
8000 Hz	69.8	57.6	64.5
A-Weighted	79.6	74.3	83.0

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

Performance Summary For RTU 5

Project: BCF - Denton, TX 533 - RP
 Prepared By:

07/19/2024
 05:14AM

- 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	89.3	86.0	82.9	80.7	78.5	73.6	69.6	64.5	92.2 Lw
B	63.1	69.9	74.3	77.5	78.5	74.8	70.6	63.4	83.2 LwA
C	56.9	53.6	50.5	48.3	46.1	41.2	37.2	32.1	59.8 Lp
D	30.7	37.5	41.9	45.1	46.1	42.4	38.2	31.0	50.8 LpA

Legend

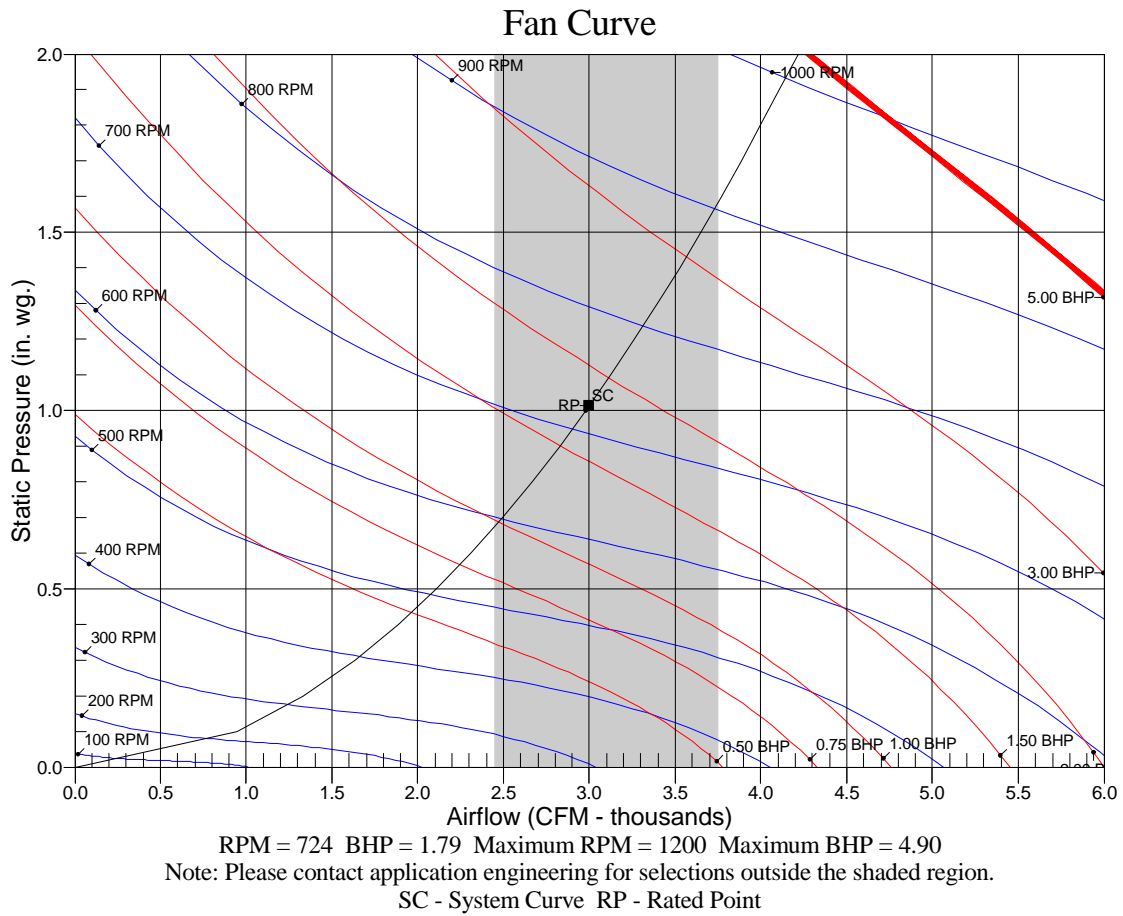
- A Sound Power Levels at Unit's Acoustic Center, Lw
- B A-Weighted Sound Power Levels at Unit's Acoustic Center, LwA
- C Sound Pressure Levels at Specific Distance from Unit, Lp
- D A-Weighted Sound Pressure Levels at Specific Distance from Unit, LpA

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.

Performance Summary For RTU 5

Project: BCF - Denton, TX 533 - RP
Prepared By:

07/19/2024
05:14AM



RTU 6

Project: BCF - Denton, TX 533 - RP
Prepared By:

07/19/2024
05:14AM

RTU 6

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

Unit Report For RTU 6

Project: BCF - Denton, TX 533 - RP
 Prepared By:

07/19/2024
 05:14AM

Unit Parameters

Unit Model:..... **48LCE007J3M6-4R5F0**
 Unit Size:.....**07 (6 Tons)**
 Volts-Phase-Hertz:..... **460-3-60**
 Heating Type:.....**Gas**
 Heat Control:..... **Medium Gas Heat**
 Duct Cfg:..... **Vertical Supply / Vertical Return**
 DX Options:**Three stage cooling capacity control with TXV**

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

Unit Length:.....**7' 4.125"**
 Unit Width:.....**4' 11.5"**
 Unit Height:.....**4' 1.375"**
Total Operating Weight:..... 1229 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.

Unit Configuration

Condensate Overflow Switch
 High Static Belt Drive with VFD Controller
 Al/Cu - Al/Cu - Louvered Hail Guards
 SystemVu Unit Controller and system building automation
 Ultra LOW LEAK Enthalpy EconoMi\$er with barometric relief
 Hinged Access Panels and Powered Convenience Outlet
 Non-Fused Disconnect and Thru-The-Base Connections
 Standard Packaging

Warranty Information

1-Year parts
 5-Year compressor parts
 10-Year heat exchanger - Aluminized
 Start-up, First Unit

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

Ordering Information

Part Number	Description	Quantity
48LCE007J3M6-4R5F0	Rooftop Unit	1
	Base Unit	
	Condensate Overflow Switch	
	High Static Belt Drive with VFD Controller	
	Al/Cu - Al/Cu - Louvered Hail Guards	
	Hinged Access Panels and Powered Convenience Outlet	
	Non-Fused Disconnect and Thru-The-Base Connections	
	SystemVu, Ultra Low Leak Enty EconoMi\$er2 with baro relief. Meets Calif. Title 24 FDD & Leak Rates	

Certified Drawing for RTU 6

Project: BCF - Denton, TX 533 - RP
Prepared By:

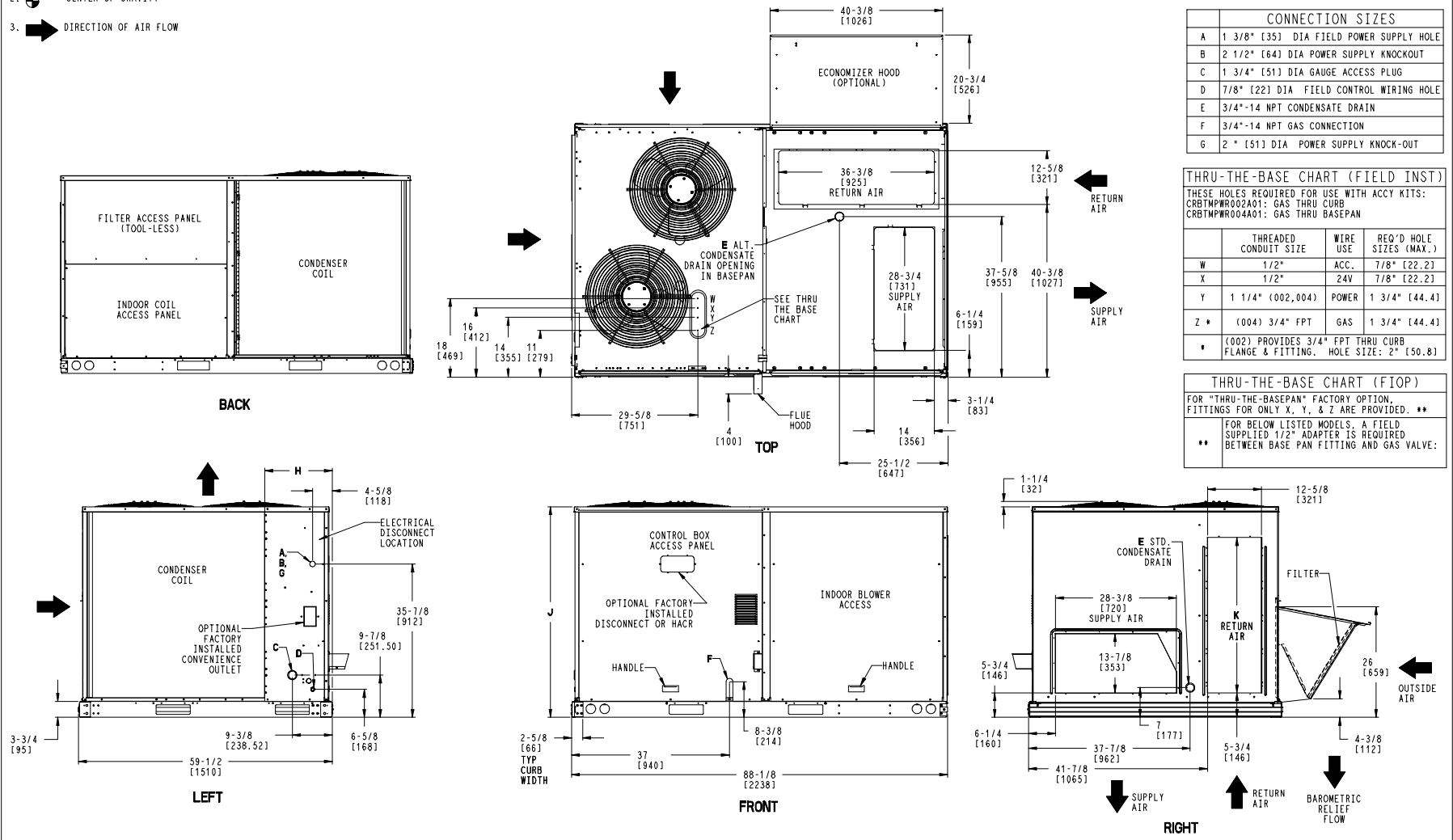
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05:14AM

NOTES:

1. DIMENSIONS ARE IN INCHES. DIMENSIONS IN [] ARE IN MILLIMETERS.
2. CENTER OF GRAVITY
3. DIRECTION OF AIR FLOW

UNIT	OUTDOOR COIL TYPE	J	K	H
48LC 07	RTPF	49 3/8 [1253]	36 3/8 [925]	15 7/8 [403]

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

THRU-THE-BASE CHART (FIELD INST)			
THESE HOLES REQUIRED FOR USE WITH ACCY KITS: CRBTPWR002A01: GAS THRU CURB CRBTPWR004A01: GAS THRU BASEPAN			
	THREADED CONDUIT SIZE	WIRE USE	REQ'D HOLE SIZES (MAX.)
W	1/2"	ACC.	7/8" [22.2]
X	1/2"	24V	7/8" [22.2]
Y	1 1/4" (002,004)	POWER	1 3/4" [44.4]
Z *	(004) 3/4" FPT	GAS	1 3/4" [44.4]
* (002) PROVIDES 3/4" FPT THRU CURB FLANGE & FITTING. HOLE SIZE: 2" [50.8]			

THRU-THE-BASE CHART (FIOP)	
FOR "THRU-THE-BASEPAN" FACTORY OPTION, FITTINGS FOR ONLY X, Y, & Z ARE PROVIDED. **	
FOR BELOW LISTED MODELS, A FIELD SUPPLIED 1/2" ADAPTER IS REQUIRED BETWEEN BASE PAN FITTING AND GAS VALVE:	
**	

SHEET 1 OF 2	DATE 7/11/14	SUPERCEDES 5/8/13	48LC 07 SINGLE ZONE ELECTRICAL COOLING WITH GAS HEAT	48LC500391	REV B
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Certified Drawing for RTU 6

Project: BCF - Denton, TX 533 - RP
 Prepared By:

07/19/2024
 05:14AM

UNIT	OUTDOOR COIL TYPE	STD. UNIT WEIGHT ***		CORNER WEIGHT (A)		CORNER WEIGHT (B)		CORNER WEIGHT (C)		CORNER WEIGHT (D)		C.G.					
		LBS.	KG.	LBS.	KG.	LBS.	KG.	LBS.	KG.	LBS.	KG.	X	Y	Z			
48LC 07	RTPF	1032	468	226	102	204	92	286	130	317	144	41 3/4	[1060]	24 3/4	[629]	20 3/4	[527]



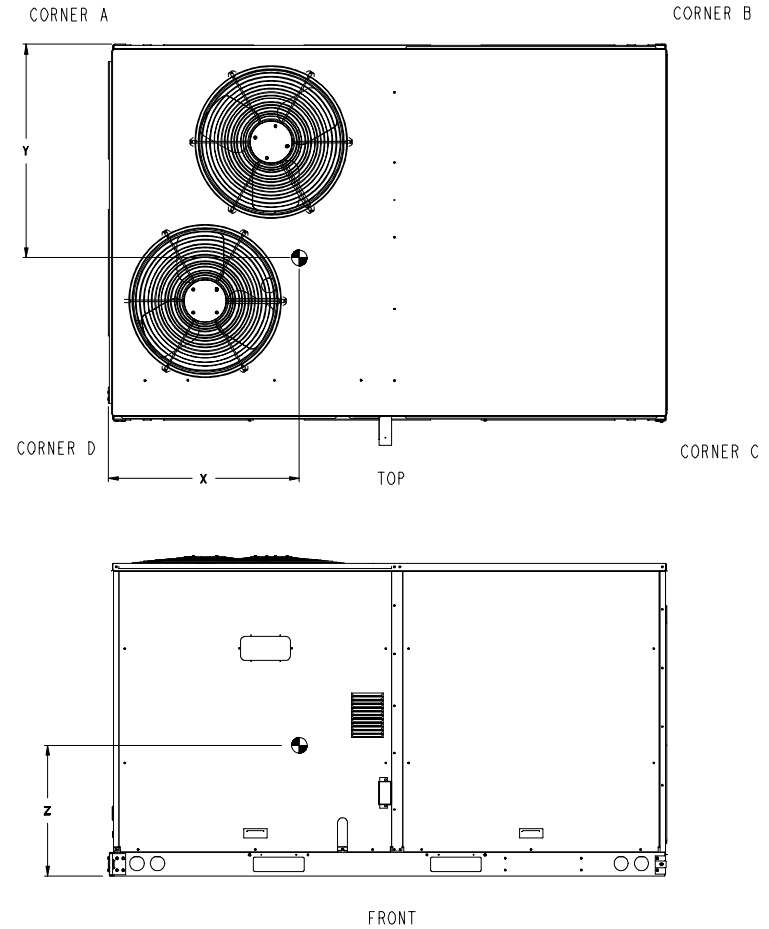
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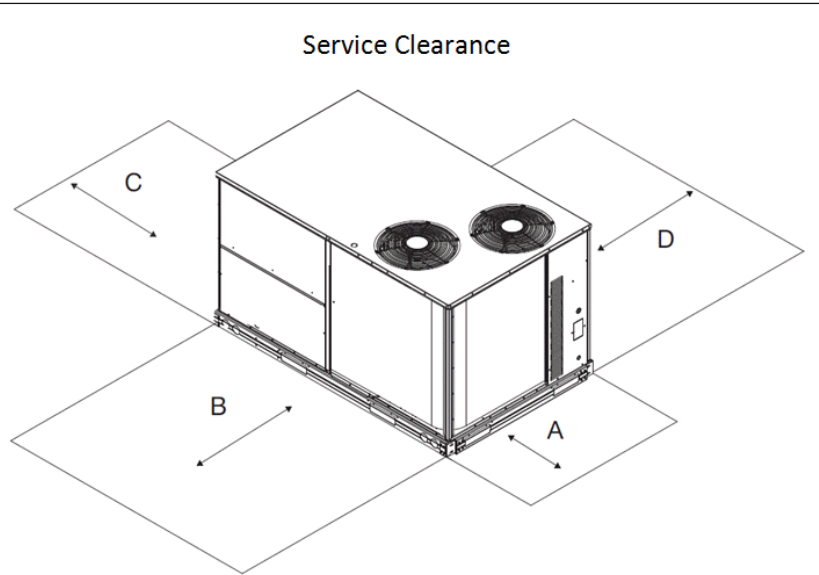


SHEET 2 OF 2	DATE 7/11/14	SUPERCEDES 5/8/13	48LC 07 SINGLE ZONE ELECTRICAL COOLING WITH GAS HEAT	48LC500391	REV B
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Certified Drawing for RTU 6

Project: BCF - Denton, TX 533 - RP
 Prepared By:

07/19/2024
 05:14AM



C11247

LOCATION	DIMENSION	CONDITION
A	48-in (1219 mm)	• Unit disconnect is mounted on panel
	36-in (914 mm)	• If dimension-B is 12-in (305 mm)
	18-in (457 mm)	• No disconnect, convenience outlet option • Recommended service clearance (use electric screwdriver)
	12-in (305 mm)	• Minimum clearance (use manual ratchet screwdriver)
B	36-in (914 mm)	• Unit has economizer
	12-in (305 mm)	• If dimension-A is 36-in (914 mm)
	Special	• Check for sources of flue products within 10-ft of unit fresh air intake hood
C	36-in (914 mm)	• Side condensate drain is used
	18-in (457 mm)	• Minimum clearance
D	48-in (1219 mm)	• No flue discharge accessory installed, surface is combustible material
	42-in (1067 mm)	• Surface behind servicer is grounded (e.g., metal, masonry wall, another unit)
	36-in (914 mm)	• Surface behind servicer is electrically non-conductive (e.g., wood, fiberglass)
	Special	• Check for adjacent units or building fresh air intakes within 10-ft of this unit's flue outlet

NOTE: Unit not designed to have overhead obstruction. Contact Application Engineering for guidance on any application planning overhead obstruction or vertical clearances.

Chassis 3-4a

Performance Summary For RTU 6

Project: BCF - Denton, TX 533 - RP
Prepared By:

07/19/2024
05:14AM

Part Number:48LCE007J3M6-4R5F0

ARI EER: 13.00
IEER: 20.3

Base Unit Dimensions

Unit Length: 88.1 in
Unit Width: 59.5 in
Unit Height: 49.4 in

Operating Weight

Base Unit Weight: 1032 lb
Medium Gas Heat: 15 lb
High Static Belt Drive with VFD Controller: 15 lb
Al/Cu - Al/Cu - Louvered Hail Guards: 34 lb
Ultra LOW LEAK Enthalpy EconoMi\$er with barometric relief: 74 lb
Hinged Access Panels and Powered Convenience Outlet: 40 lb
Non-Fused Disconnect and Thru-The-Base Connections: 19 lb

Total Operating Weight: 1229 lb

Unit

Unit Voltage-Phase-Hertz: 460-3-60
Air Discharge: Vertical
Fan Drive Type: Belt Drive
Actual Airflow: 3000 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: 59.9 F
Evaporator Leaving Air WB: 59.2 F
Evaporator Leaving Air Enthalpy: 25.80 BTU/lb
Gross Cooling Capacity: 76.14 MBH
Gross Sensible Capacity: 65.12 MBH
Compressor Power Input: 4.49 kW
Coil Bypass Factor: 0.083

Heating Performance

Heating Airflow: 3000 CFM
Entering Air Temp: 70.0 F
Leaving Air Temp: 101.8 F
Gas Heating Input Capacity: 90.0 / 125.0 MBH
Gas Heating Output Capacity: 73.0 / 103.0 MBH
Temperature Rise: 31.8 F
Thermal Efficiency (%): 82.0

Supply Fan

External Static Pressure: 0.50 in wg
Options / Accessories Static Pressure
Economizer: 0.15 in wg
Application External Static (ESP + Unit Opts/Acc.): 0.65 in wg
Fan RPM: 743
Fan Power: 1.26 BHP
NOTE: The Selected Indoor Fan Motor requires a Field-Supplied Drive (RPM Range: 847 - 1150).

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

Performance Summary For RTU 6

Project: BCF - Denton, TX 533 - RP
 Prepared By:

07/19/2024
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Electrical Data

Voltage Range:	414 - 506
Compressor #1 RLA:.....	5.1
Compressor #1 LRA:.....	28
Compressor #2 RLA:.....	6
Compressor #2 LRA:.....	44
Indoor Fan Motor Type:.....	HIGH
Indoor Fan Motor FLA (Total):.....	3.8
Combustion Fan Motor FLA (ea):.....	0.25
Power Supply MCA:.....	23
Power Supply MOCP (Fuse or HACR):.....	25
Disconnect Size FLA:.....	24
Disconnect Size LRA:	105
Electrical Convenience Outlet FLA (based on unit line voltage):.....	2.2
Outdoor Fan [Qty / FLA (ea)]:	2 / 1.8

NOTE: Convenience outlet must be field connected to the line/load side of the unit disconnect per local code.

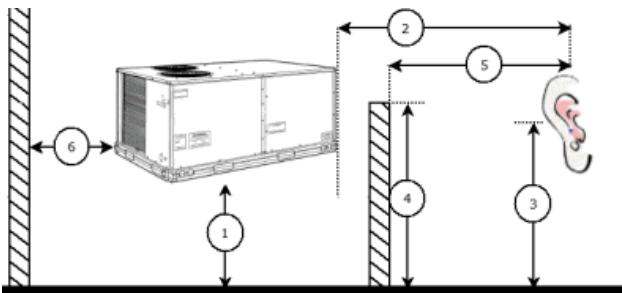
Control Panel SCCR: 5kA RMS at Rated Symmetrical Voltage

Acoustics

Sound Power Levels, db re 10E-12 Watts

	Discharge	Inlet	Outdoor
63 Hz	96.8	94.0	88.6
125 Hz	90.8	84.4	85.0
250 Hz	75.6	68.7	81.6
500 Hz	69.2	64.3	79.5
1000 Hz	64.6	61.6	77.4
2000 Hz	62.8	56.7	74.1
4000 Hz	65.4	56.1	71.0
8000 Hz	66.0	55.5	66.3
A-Weighted	78.0	72.5	82.0

Advanced Acoustics



Advanced Accoustics 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

Performance Summary For RTU 6

Project: BCF - Denton, TX 533 - RP
Prepared By:

07/19/2024
05:14AM

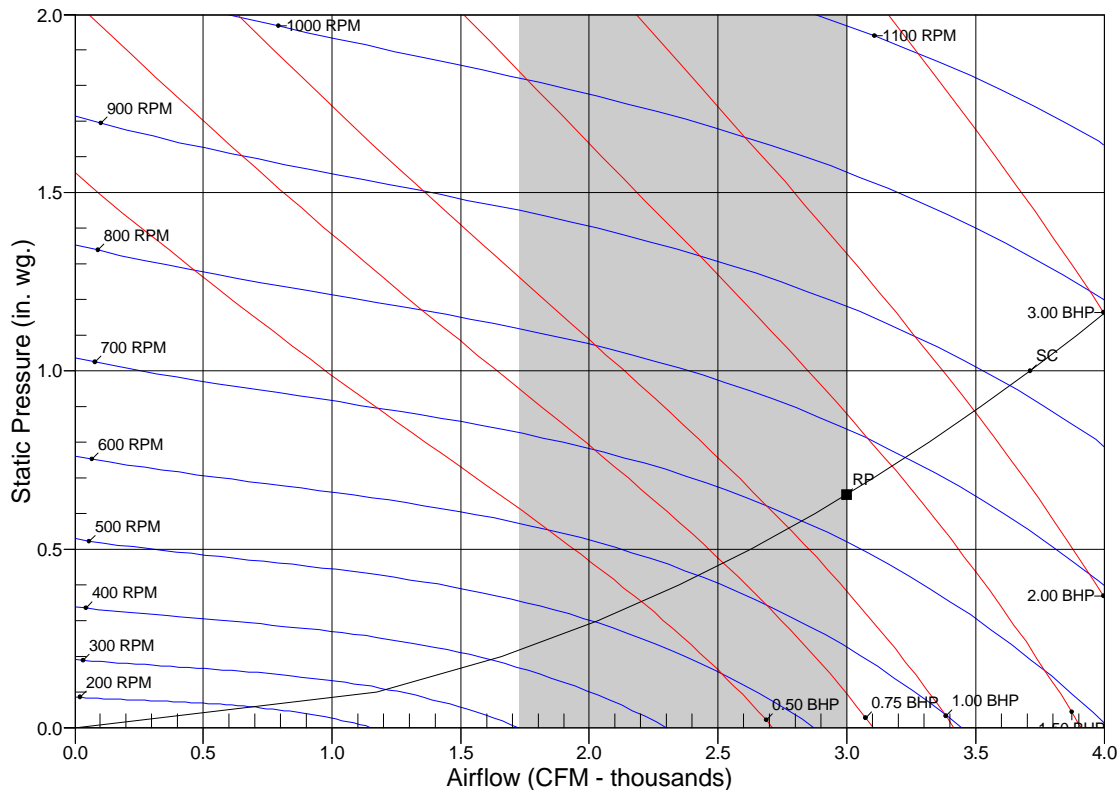
Octave Band Center Freq. Hz	63	125	250	500	1k	2k	4k	8k	Overall
A	88.6	85.0	81.6	79.5	77.4	74.1	71.0	66.3	91.4 Lw
B	62.4	68.9	73.0	76.3	77.4	75.3	72.0	65.2	82.6 LwA
C	56.2	52.6	49.2	47.1	45.0	41.7	38.6	33.9	59.0 Lp
D	30.0	36.5	40.6	43.9	45.0	42.9	39.6	32.8	50.2 LpA

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.

Fan Curve



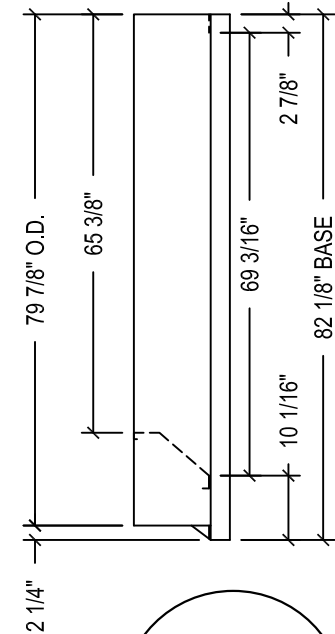
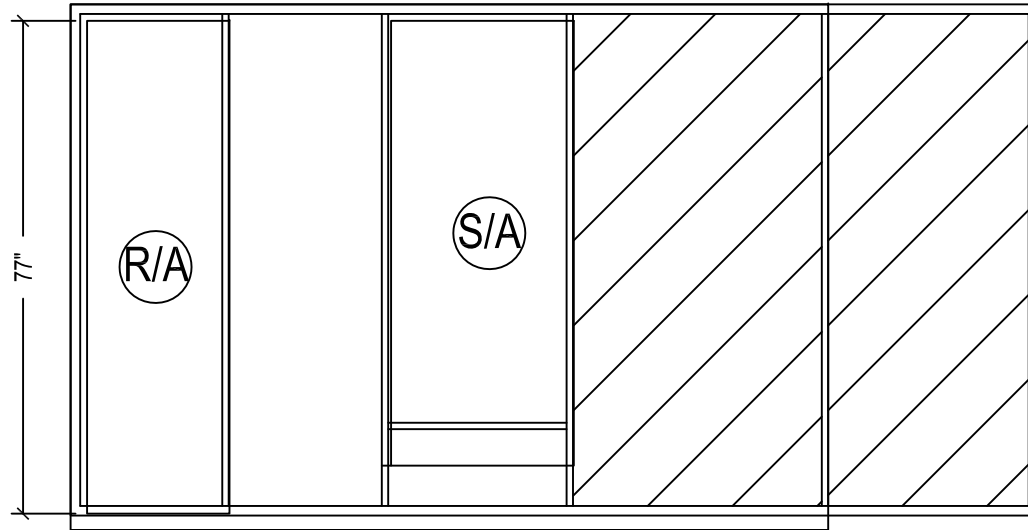
RPM = 743 BHP = 1.26 Maximum RPM = 1250 Maximum BHP = 2.90

Note: Please contact application engineering for selections outside the shaded region.

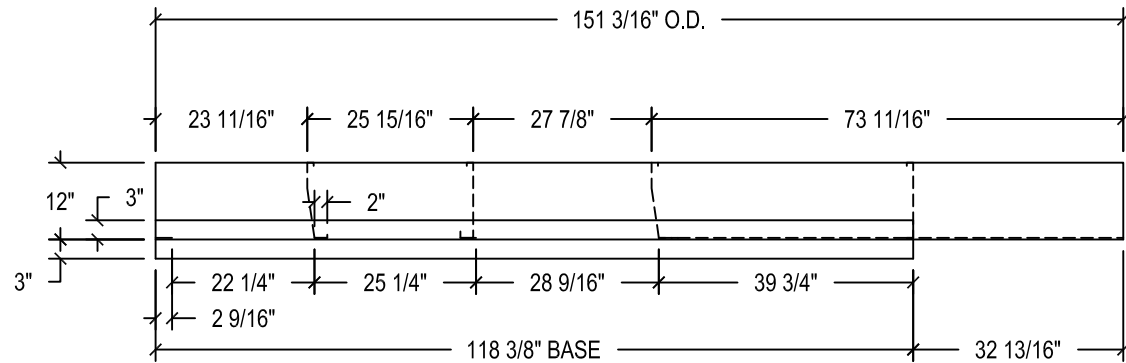
SC - System Curve RP - Rated Point

Job Name: BCF #533 - Denton, TX

Drawing Date: 10-11-12	REV: 001	Approved By:
SHELL: 16 GA.	PANS: 18 GA.	CHANNELS: 18 GA.
CLOSURES: 12 GA.	TOP FLANGE DIM: 1 1/2"	



ADAPTERS ARE DESIGNED WITH AN APPROXIMATE .1\"/>



QTY.: 3	DRAWN BY.: SLW
NEW UNIT: CARRIER	
48LCEA24	
OLD UNIT: TRANE	
YCD301C	
ROLLS OF GASKET: 3	
TAG: RTU-1-3	



TRANSITION-CURB SYSTEM

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TAG PLATE: CR324TR13

APPROXIMATE WEIGHT: 550 LBS.

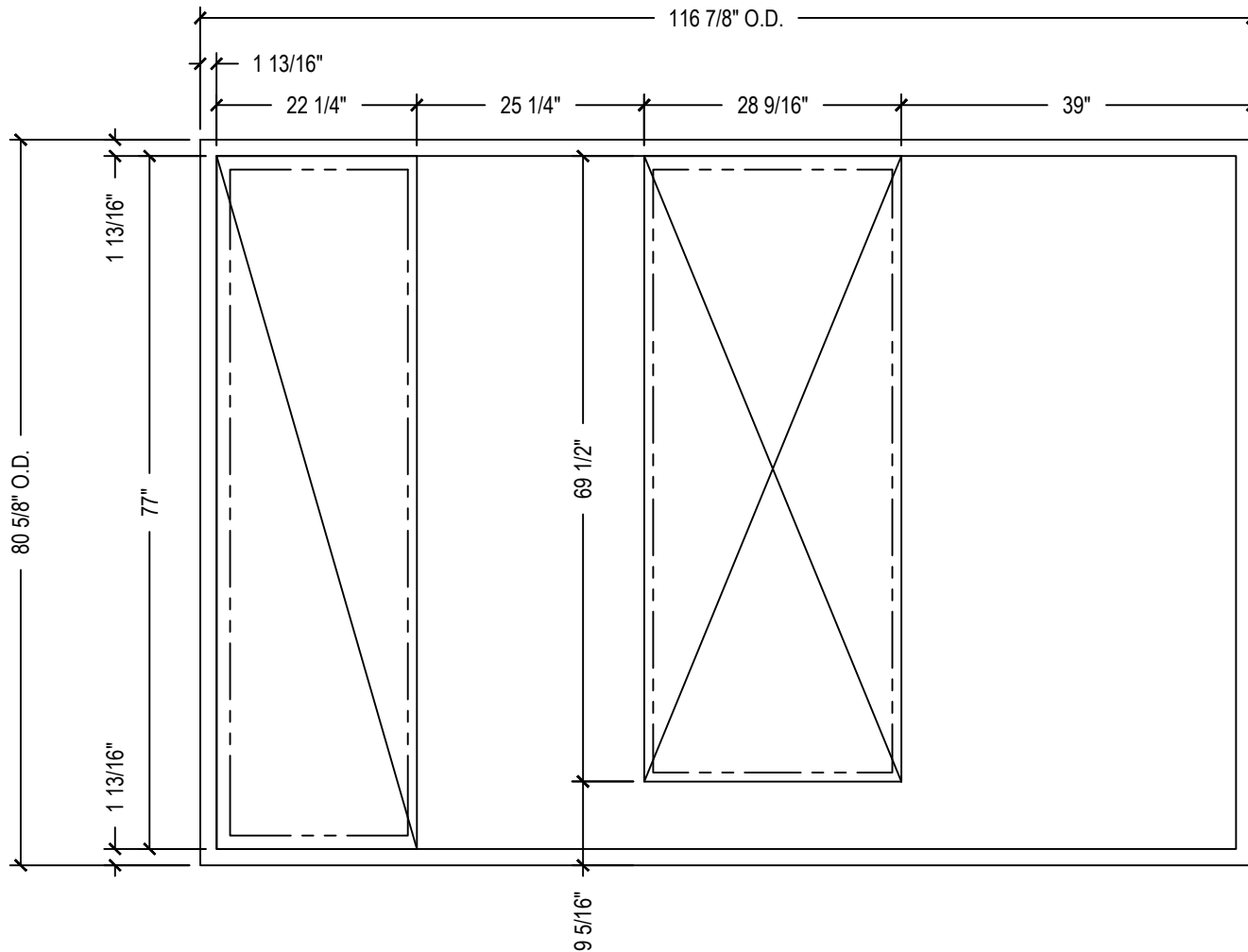
Note: Design subject to change without notice.

File Name: CR324TR13 NEW CARRIER 48HC28 EXISTING TRANE YCD 181-301C

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EXISTING CURB VERIFICATION SHEET



QTY:

TAG(S):

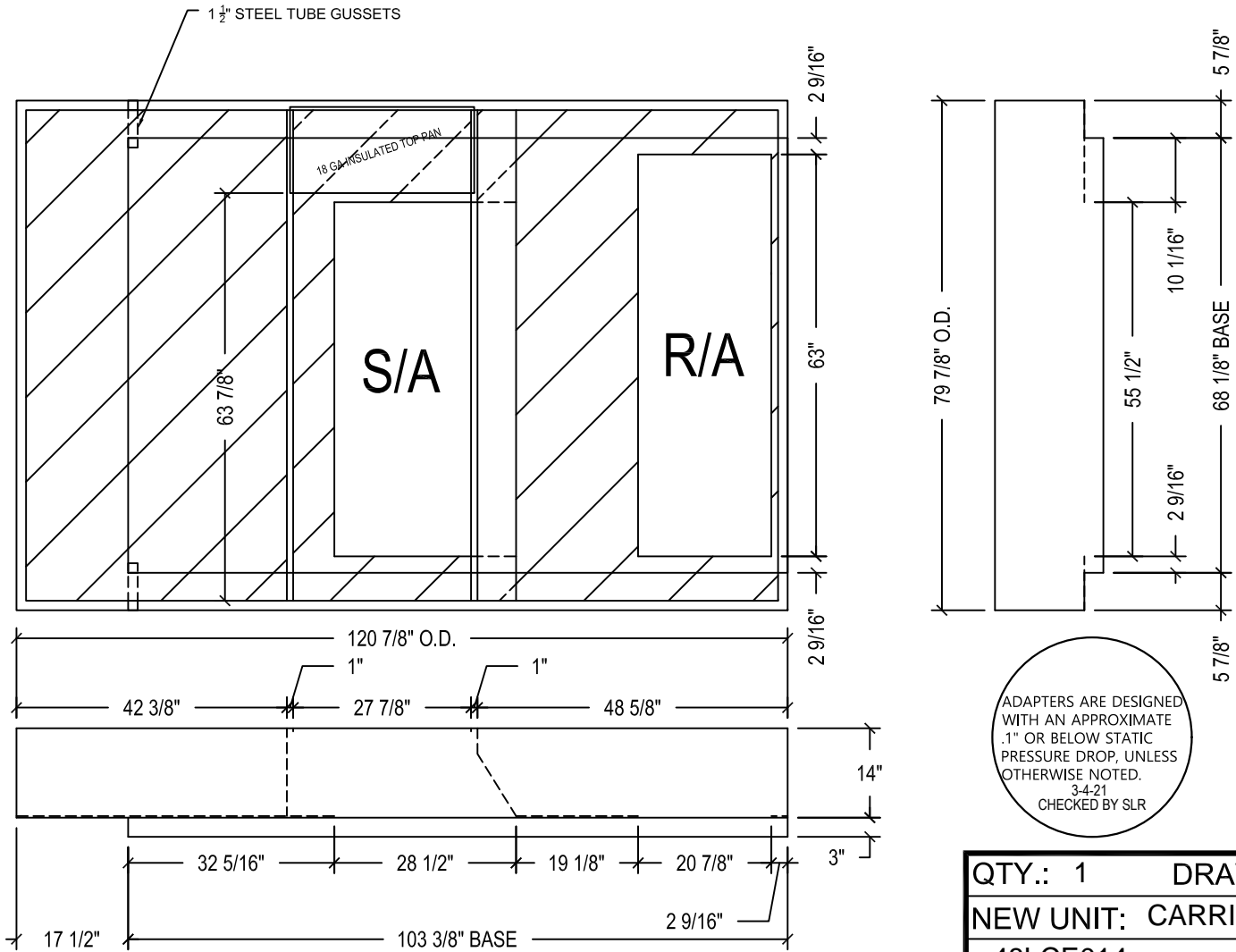
Qty: 3

Unit: TRANE YCD301C

Tag: RTU-1-3

Job Name: BCF #533 - Denton, TX

Drawing Date: 10-15-12	REV: 001	Approved By:
SHELL: 14 GA	PANS: 18 GA	CHANNELS: 14 GA
CLOSURES: 14 GA	TOP FLANGE DIM: 1 1/2"	



ADAPTERS ARE DESIGNED WITH AN APPROXIMATE .1" OR BELOW STATIC PRESSURE DROP, UNLESS OTHERWISE NOTED.
3-4-21
CHECKED BY SLR

QTY.: 1	DRAWN BY.: SLR
NEW UNIT: CARRIER	
48LCE014	
OLD UNIT: TRANE	
YCD151C	
ROLLS OF GASKET: 4	
TAG: RTU-4	



TRANSITION-CURB SYSTEM

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TAG PLATE: CR313TR12

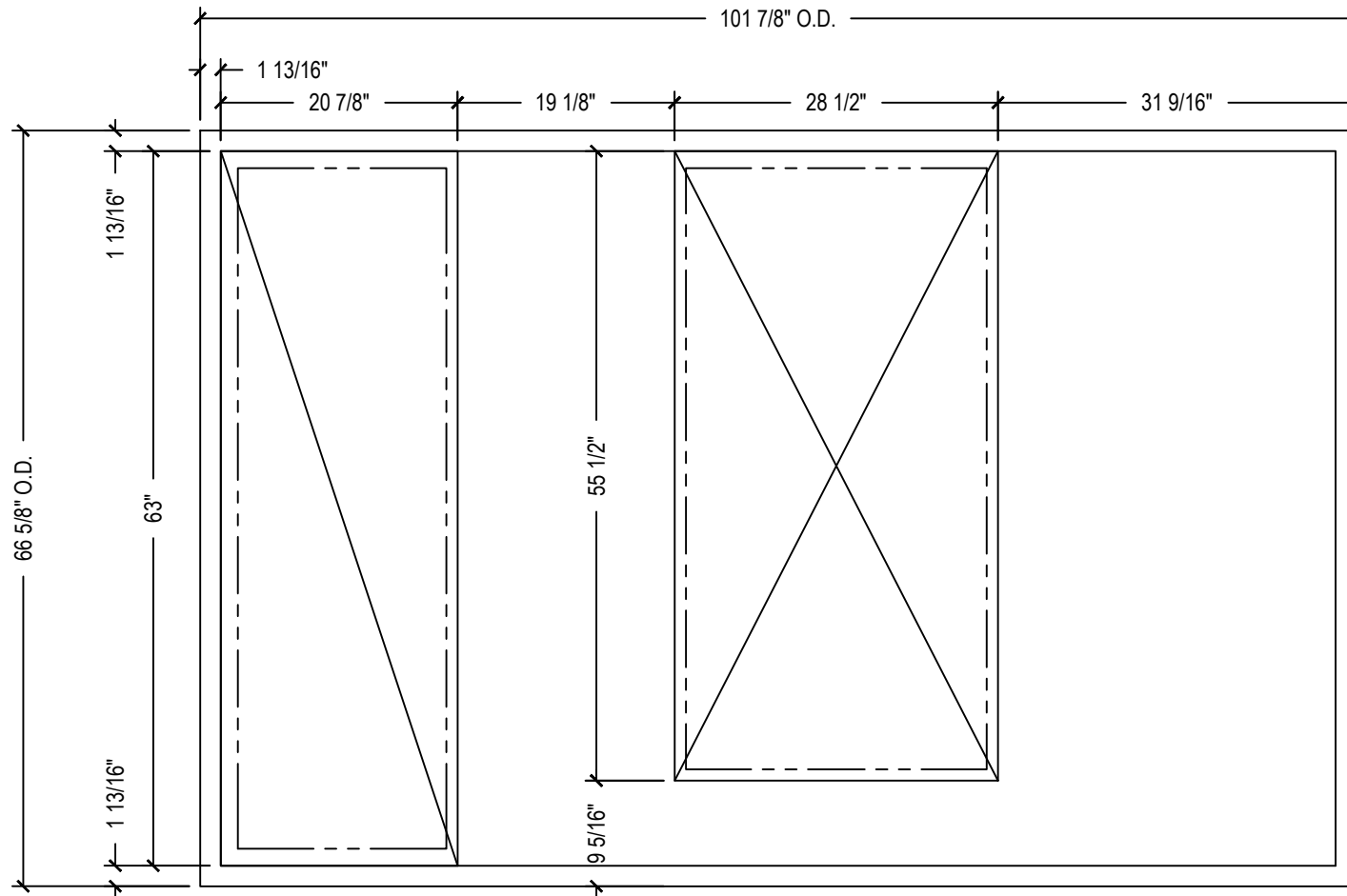
APPROXIMATE WEIGHT: 455 LBS.

Note: Design subject to change without notice.

File Name: CR313TR12 NEW CARRIER 48TCED17-20,48HC 17 EXISTING TRANE T-W-YCD 121-210C ©2003 Curbs Plus, Inc.



EXISTING CURB VERIFICATION SHEET



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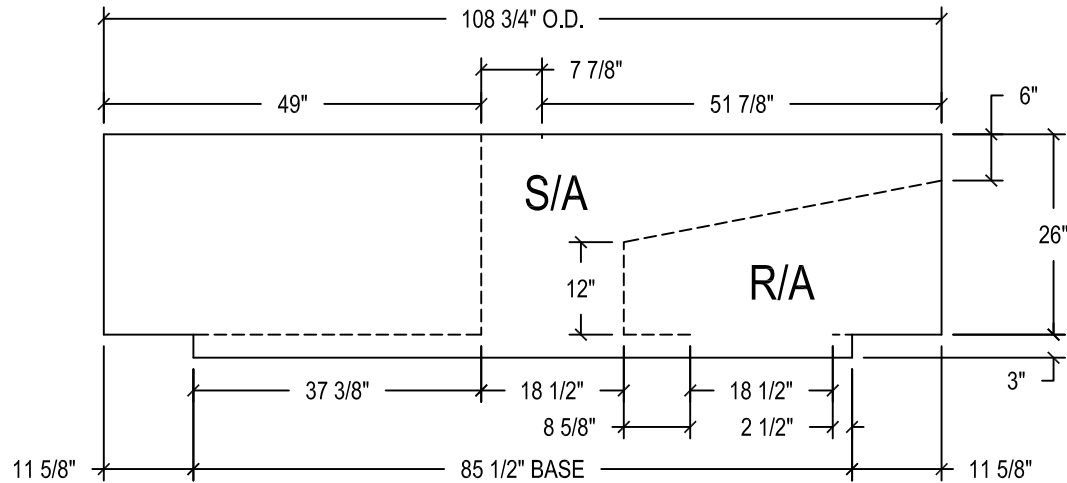
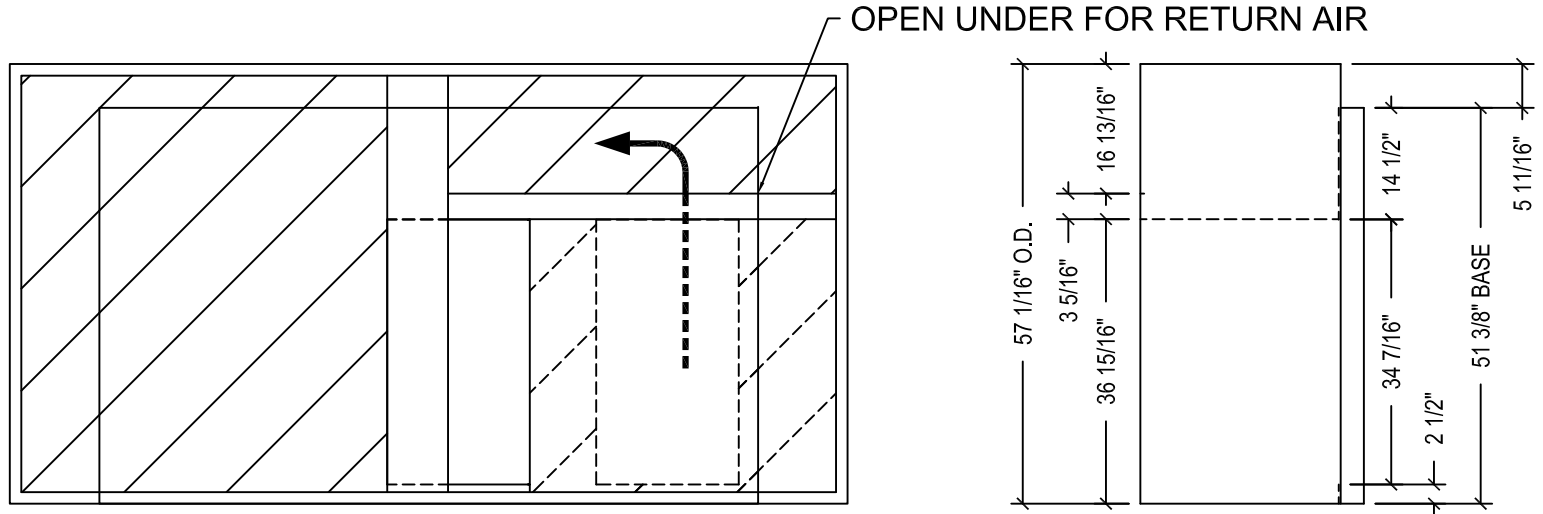
TAG(S):

Qty: 1

Unit: TRANE YCD151C

Tag: RTU-4

Drawing Date: 2-22-17	REV: 001	Approved By:	Approved Date:
SHELL: 14 GA	PANS: 18 GA	CHANNELS: 14 GA	CLOSURES: 12 GA
TOP FLANGE DIM: 1 1/2"			



ADAPTERS ARE DESIGNED WITH AN APPROXIMATE .1" OR BELOW STATIC PRESSURE DROP, UNLESS OTHERWISE NOTED.
3-4-21
CHECKED BY SLR

QTY.: 1	DRAWN BY.: LEV
NEW UNIT: CARRIER	
48LCE008	
OLD UNIT: TRANE	
YHC092A	
ROLLS OF GASKET: 3	
TAG: RTU-5	



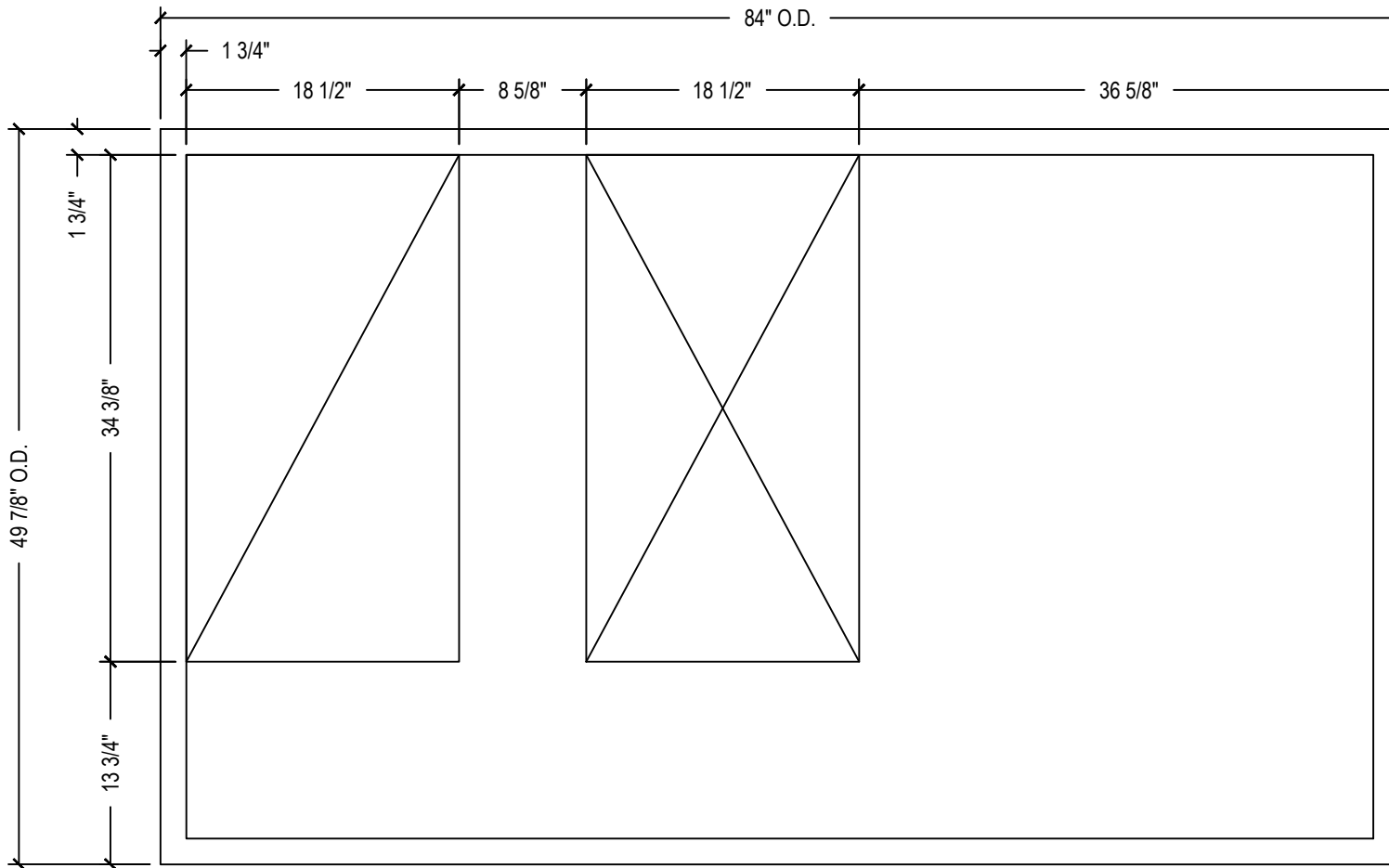
TRANSITION-CURB SYSTEM

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TAG PLATE: CR332TR16
APPROXIMATE WEIGHT: 460 LBS



EXISTING CURB VERIFICATION SHEET



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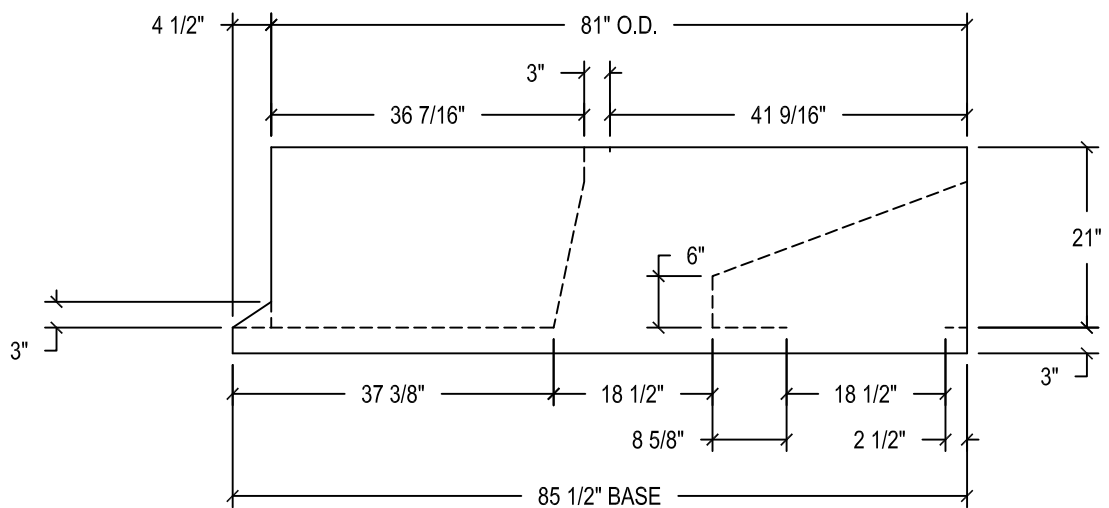
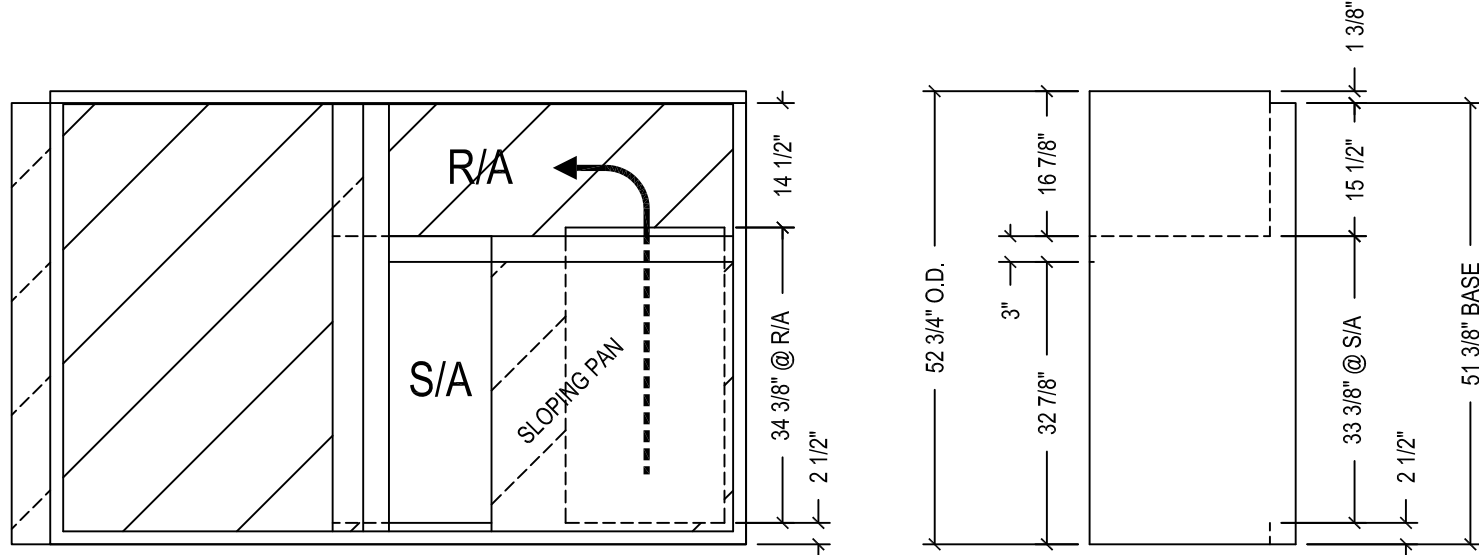
TAG(S):

Qty: 1

Unit: TRANE YHC092A

Tag: RTU-5

Drawing Date: 8-14-13	REV: 001	Approved By:	Approved Date:
SHELL: 16 GA	PANS: 18 GA	CHANNELS: 16 GA	CLOSURES: 16 GA
TOP FLANGE DIM: 1 1/2"			



ADAPTERS ARE DESIGNED WITH AN APPROXIMATE .1" OR BELOW STATIC PRESSURE DROP, UNLESS OTHERWISE NOTED.
3-4-21
CHECKED BY SLR

QTY.: 1	DRAWN BY.: LEV
NEW UNIT: CARRIER	
48LCE007	
OLD UNIT: TRANE	
YHC072A	
ROLLS OF GASKET: 2	
TAG: RTU-6	



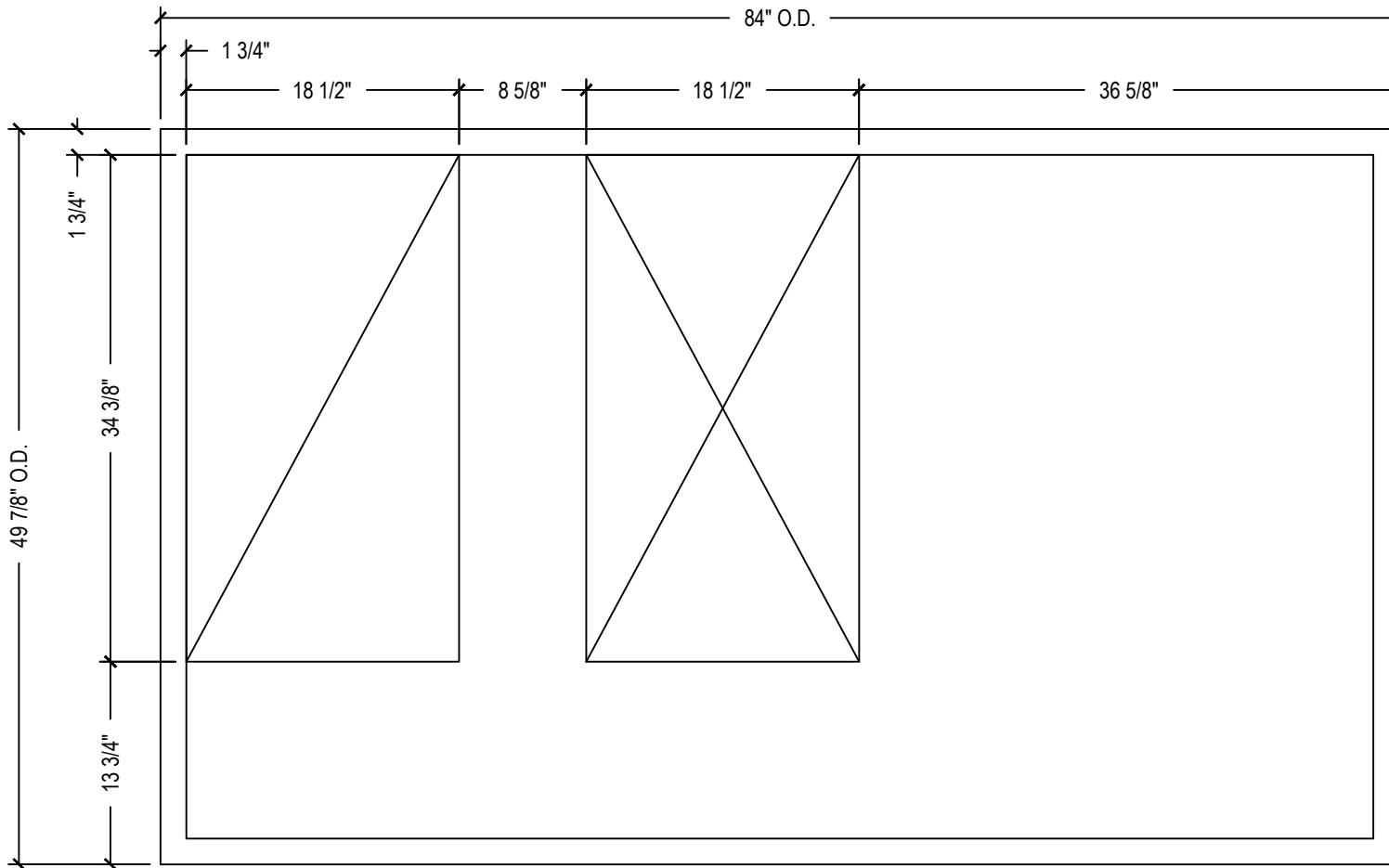
TRANSITION-CURB SYSTEM

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TAG PLATE: CR37TR16
APPROXIMATE WEIGHT: 390 LBS



EXISTING CURB VERIFICATION SHEET



QTY:

TAG(S):

Qty: 1

Unit: TRANE YHC072A

Tag: RTU-6