



PREORDER

REVISION 1

SUBMITTAL

Project

BCF - St Petersburg, FL #1357

Date

Wednesday, February 16, 2022

2/8/23 Two 10-ton will go to #1450
Cape Coral, two 10-ton and two
15-ton go to #1224 Kissimmee,
one 6-ton go to #1458 Jensen
Beach

Accepted By:

Name:

Rebecca Sherman

Title:

VP- Sustainability

Company:

Burlington Stores

Date:

03-15-22

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Prepared By:

03/15/2022
11:14AM

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RTU - 1,12

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

Unit Report For RTU - 1,12

Project: BCF - St Petersburg, FL #1357
 Prepared By:

03/15/2022
 11:14AM

Unit Parameters

Unit Model:..... **50LCEA17J2C6-4S4C0**
 Unit Size:..... **17 (15 Tons)**
 Volts-Phase-Hertz: **460-3-60**
 Heating Type:..... **Electric**
 Duct Cfg:..... **Vertical Supply / Vertical Return**
 Medium Electric Heat
 Three stage cooling capacity control with TXV and
 Humidi-MiZer

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

Unit Length:..... **11' 9.5"**
 Unit Width:..... **7' 2.375"**
 Unit Height: **4' 10.5"**
 *** Total Operating Weight: **2628** 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

Medium Electric Heat
 Condensate Overflow Switch
 Medium Static Option - Vertical Models with VFD controller
 E-coat Al/Cu - Al/Cu
 SystemVu Unit Controller and system building automation
 Enth. Ultra Low Leak EconoMi\$er w/ PE (cent) - Vertical Air Only
 Hinged Panels, Unpowered Convenience Outlet
 Non-Fused Disconnect
 Standard Packaging
 Humidi-MiZer™ Adaptive Dehumidification System

Warranty Information

5-Year compressor parts (STD.)
 1-Year parts (STD.)
 Start-up, First Unit

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

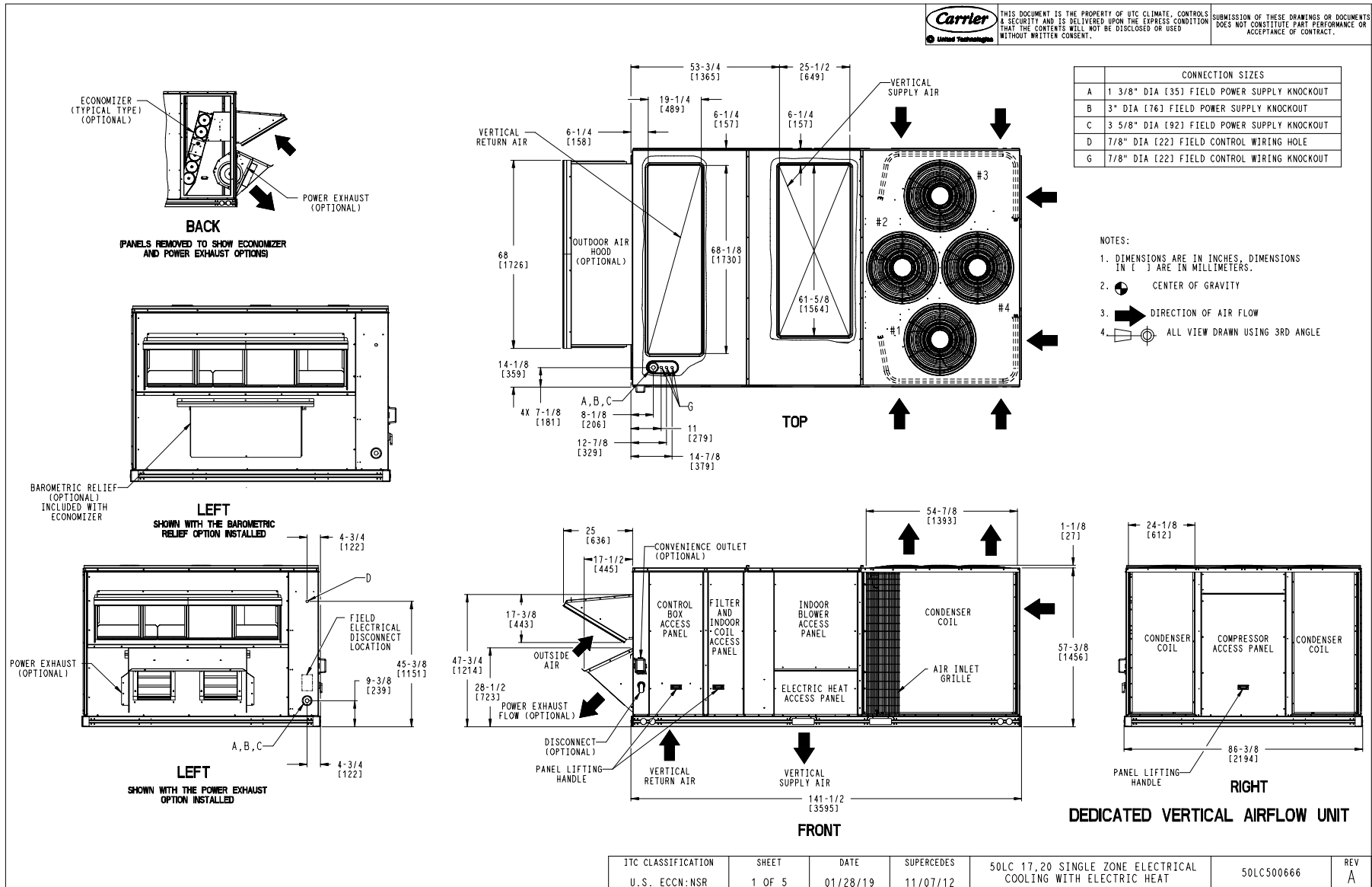
Ordering Information

Part Number	Description	Quantity
50LCEA17J2C6-4S4C0	Rooftop Unit	2
	Base Unit	
	Medium Electric Heat	
	Condensate Overflow Switch	
	Medium Static Option - Vertical Models with VFD controller	
	E-coat Al/Cu - Al/Cu	
	Hinged Panels, Unpowered Convenience Outlet	
	Non-Fused Disconnect	
	Humidi-MiZer™ Adaptive Dehumidification System	
	SystemVu controller, Ultra LOW LEAK EconoMi\$er2 enthalpy economizer with centrifugal power exhaust.	
Field Installed Accessories		
33CSENTSEN	Enthalpy Transmitter	2
33ZCT55SPT	Space Temp. with Override	2

Certified Drawing for RTU - 1,12

Project: BCF - St Petersburg, FL #1357
 Prepared By:

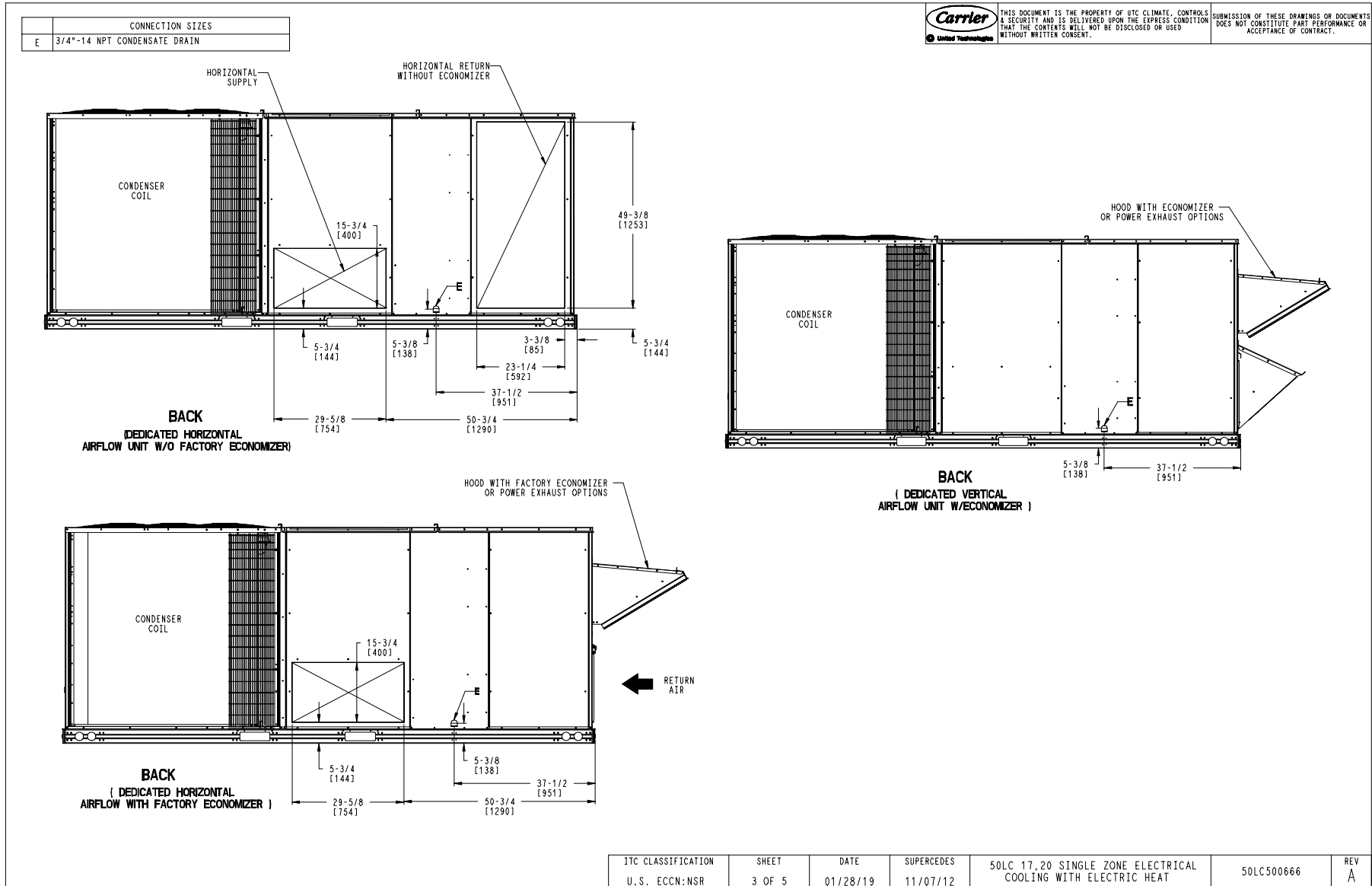
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Certified Drawing for RTU - 1,12

Project: BCF - St Petersburg, FL #1357
 Prepared By:

03/15/2022
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JTC CLASSIFICATION U.S. ECCN: NSR	SHEET 3 OF 5	DATE 01/28/19	SUPERCEDES 11/07/12	50LC 17.20 SINGLE ZONE ELECTRICAL COOLING WITH ELECTRIC HEAT	50LC500666	REV A
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Certified Drawing for RTU - 1,12

Project: BCF - St Petersburg, FL #1357
 Prepared By:

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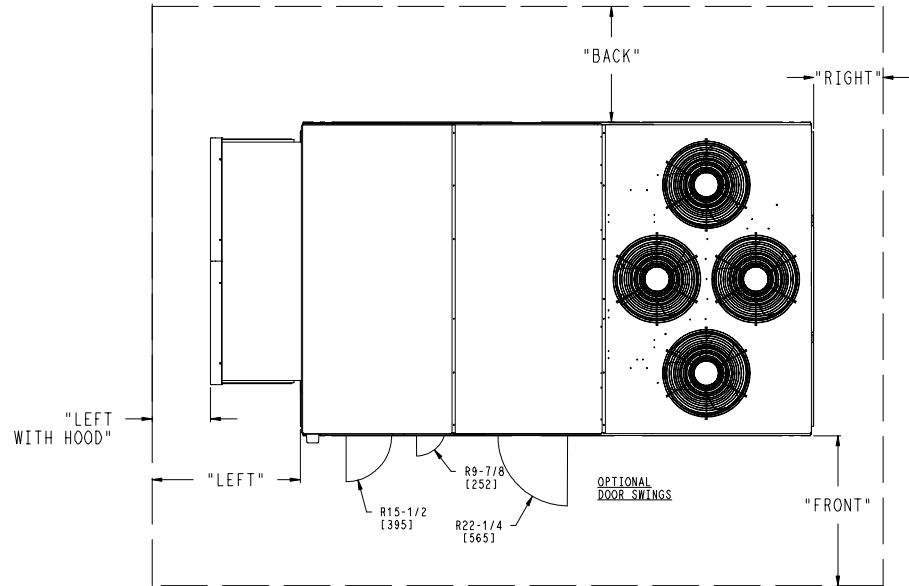
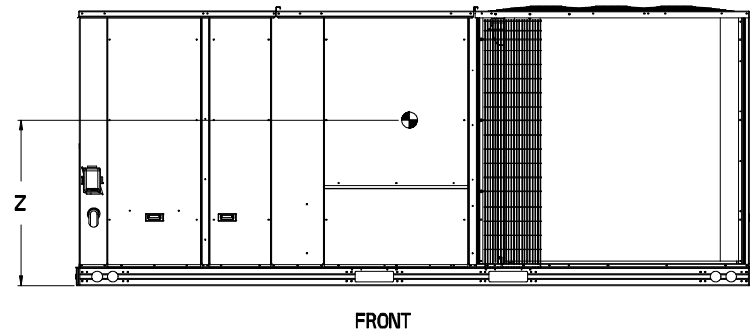
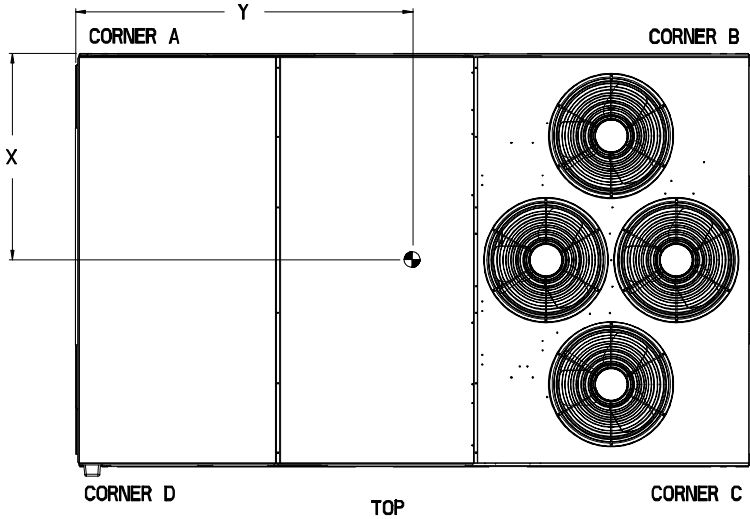
UNIT	STD UNIT WEIGHT #		CORNER WEIGHT (A)		CORNER WEIGHT (B)		CORNER WEIGHT (C)		CORNER WEIGHT (D)		C.G.					
	LBS.	KG.	LBS.	KG.	LBS.	KG.	LBS.	KG.	LBS.	KG.	X	Y	Z			
50LC17	1996	907.3	510.2	231.9	487.5	221.6	479.8	218.1	412.2	187.3	38 1/2	[977.90]	76	[1930.40]	19	[482.6]
50LC20	2102	955.7	537.4	244.3	625.6	284.4	505.4	229.7	434.1	197.3	38 1/2	[977.90]	76	[1930.40]	19	[482.6]

* 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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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	SHEET	DATE	SUPERCEDES	50LC 17.20 SINGLE ZONE ELECTRICAL COOLING WITH ELECTRIC HEAT	50LC500666	REV
U.S. ECCN:NSR	4 OF 5	01/28/19	11/07/12			A

Certified Drawing for RTU - 1,12

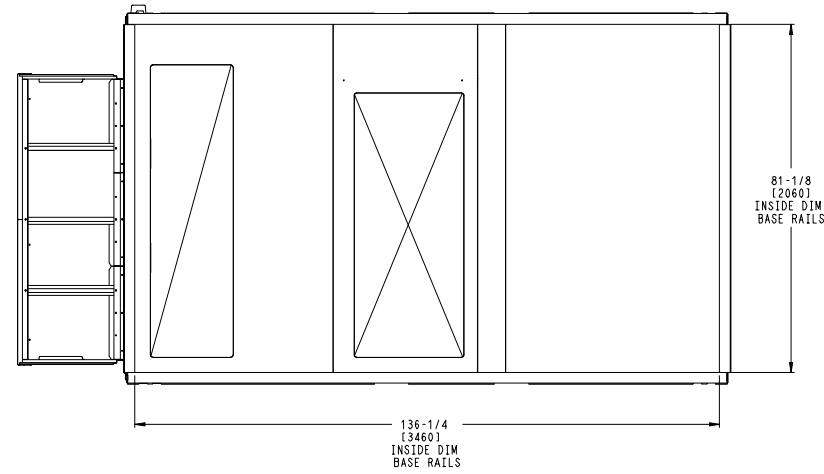
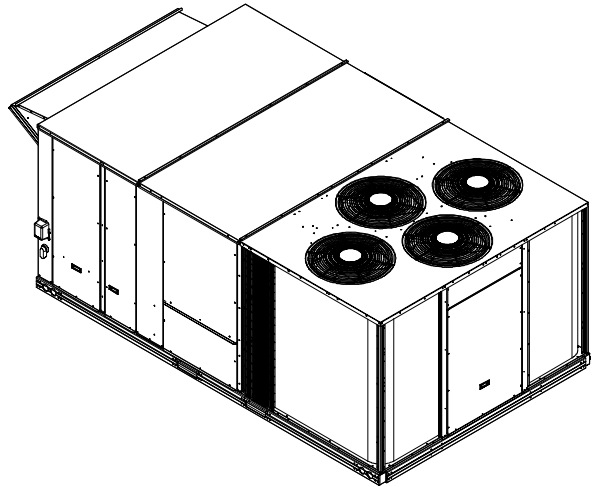
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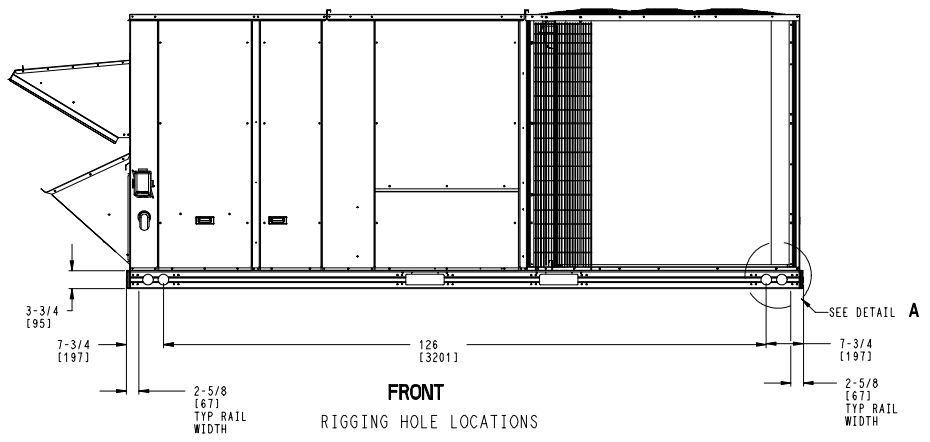
Carrier
United Technologies

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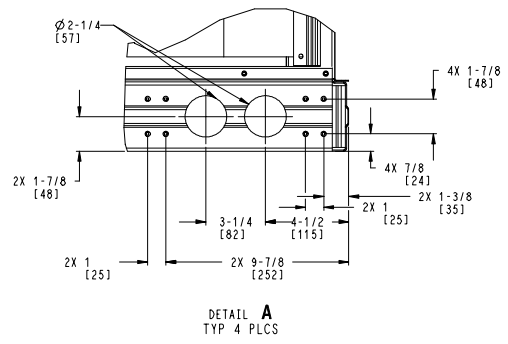
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BOTTOM
 INSIDE BASERAIL DIMENSIONS



FRONT
 RIGGING HOLE LOCATIONS



DETAIL A
 TYP 4 PLCS

JTC CLASSIFICATION	SHEET	DATE	SUPERCEDES	50LC 17.20 SINGLE ZONE ELECTRICAL COOLING WITH ELECTRIC HEAT	50LC500666	REV
U.S. ECCN: NSR	5 OF 5	01/28/19	11/07/12			A

Performance Summary For RTU - 1,12

Project: BCF - St Petersburg, FL #1357
Prepared By:

03/15/2022
11:14AM

Part Number:50LCEA17J2C6-4S4C0

ARI EER: 12.60
IEER (Max Cooling at Normal Cooling Design Mode): 18.5

Base Unit Dimensions

Unit Length: 141.5 in
Unit Width: 86.4 in
Unit Height: 58.5 in

Operating Weight

Base Unit Weight: 1996 lb
Medium Electric Heat: 100 lb
Three stage cooling capacity control with TXV and Humidi-MiZer: 120 lb
Medium Static Option - Vertical Models with VFD controller: 6 lb
SystemVu Unit Controller and system building automation: 10 lb
Enthy. Ultra Low Leak EconoMi\$er w/ PE (cent) - Vertical Air Only: 371 lb
Hinged Panels, Unpowered Convenience Outlet: 10 lb
Non-Fused Disconnect: 15 lb

Total Operating Weight: 2628 lb

Unit

Unit Voltage-Phase-Hertz: 460-3-60
Air Discharge: Vertical
Fan Drive Type: Belt
Actual Airflow: 6000 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: 58.0 F
Evaporator Leaving Air WB: 57.2 F
Evaporator Leaving Air Enthalpy: 24.55 BTU/lb
Gross Cooling Capacity: 185.86 MBH
Gross Sensible Capacity: 142.55 MBH
Compressor Power Input: 12.29 kW
Coil Bypass Factor: 0.037

Heating Performance

Heating Airflow: 6000 CFM
Entering Air Temp: 62.8 F
Leaving Air Temp: 87.0 F
Electric Heating Capacity: 45.90 kW

Supply Fan

External Static Pressure: 0.80 in wg
Options / Accessories Static Pressure
Electric Heaters: 0.04 in wg
Humidi-MiZer Dehumidification System: 0.04 in wg
Economizer: 0.06 in wg
Total Application Static (ESP + Unit Opts/Acc.): 0.94 in wg
Fan RPM: 790
Fan Power: 2.56 BHP
NOTE: Selected IFM RPM Range: 651 - 818

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

Performance Summary For RTU - 1,12

Project: BCF - St Petersburg, FL #1357
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03/15/2022
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Power Exhaust

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

Electrical Data

Voltage Range: **414 - 506**
 Compressor #1 RLA: **9.8**
 Compressor #1 LRA: **62**
 Compressor #2 RLA: **12.8**
 Compressor #2 LRA: **100**
 Actual Electric Heater kW: **45.9**
 Electric Heater FLA: **60.1**
 Indoor Fan Motor Type: **MED**
 Indoor Fan Motor FLA: **9.7**
 Power Supply MCA: **80**
 Power Supply MOCP (Fuse or HACR): **90**
 Disconnect Size FLA: **87**
 Disconnect Size LRA: **224**
 Electrical Convenience Outlet: **None**
 Power Exhaust [Motor Qty / FLA(ea motor)]: **2 / 3.1**
 Outdoor Fan [Qty / FLA (ea)]: **4 / 1.3**

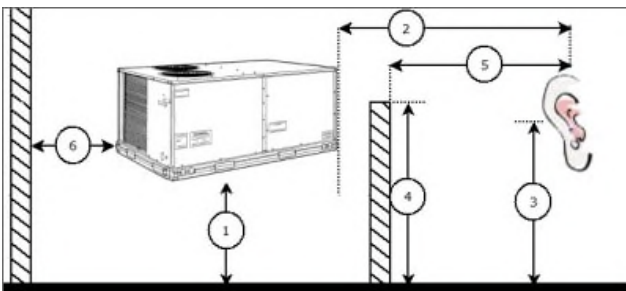
Control Panel SCCR: 5kA RMS at Rated Symmetrical Voltage

Acoustics

Sound Power Levels, db re 10E-12 Watts

	Discharge	Inlet	Outdoor
63 Hz	88.5	84.9	97.1
125 Hz	81.2	72.8	88.3
250 Hz	73.9	65.5	84.4
500 Hz	73.6	62.0	83.3
1000 Hz	68.8	55.8	80.7
2000 Hz	68.1	50.5	77.4
4000 Hz	68.9	47.4	73.4
8000 Hz	60.3	39.9	67.3
A-Weighted	76.6	64.8	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
 5. Horizontal distance from obstruction to receiver: **0.0** ft

Performance Summary For RTU - 1,12

Project: BCF - St Petersburg, FL #1357
 Prepared By:

03/15/2022
 11:14AM

6. Horizontal distance from unit to obstruction:0.0 ft

Detailed Acoustics Information

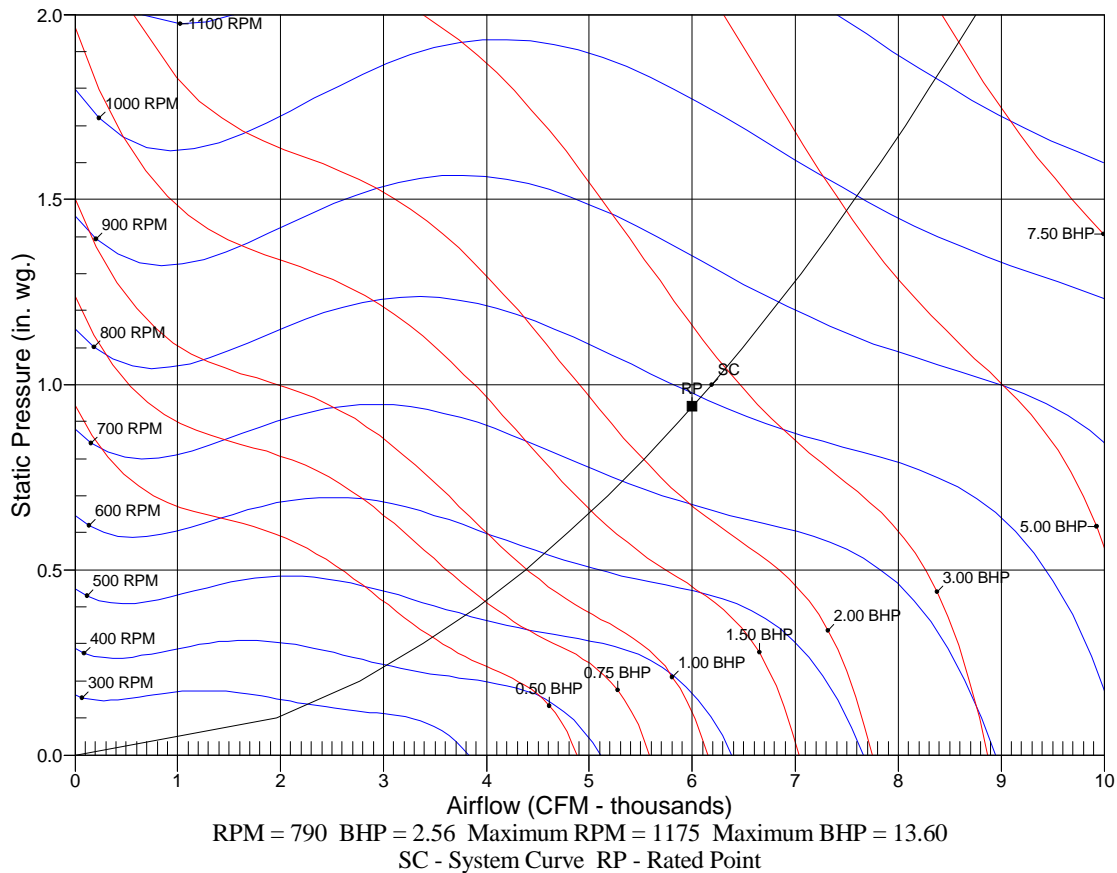
Octave Band Center Freq. Hz	63	125	250	500	1k	2k	4k	8k	Overall
A	97.1	88.3	84.4	83.3	80.7	77.4	73.4	67.3	98.1 Lw
B	70.9	72.2	75.8	80.1	80.7	78.6	74.4	66.2	85.9 LwA
C	64.7	55.9	52.0	50.9	48.3	45.0	41.0	34.9	65.7 Lp
D	38.5	39.8	43.4	47.7	48.3	46.2	42.0	33.8	53.5 LpA

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.

Fan Curve



RTU - 2-6

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

Unit Report For RTU - 2-6

Project: BCF - St Petersburg, FL #1357
 Prepared By:

RTU-1 (10 TON)

03/15/2022
 11:14AM

Unit Parameters

Unit Model:..... **50LCEA12J2C6-4R4F0**
 Unit Size:..... **12 (10.0 tons)**
 Volts-Phase-Hertz:..... **460-3-60**
 Heating Type:..... **Electric**
 Duct Cfg:..... **Vertical Supply / Vertical Return**

Medium Electric Heat
 Three stage cooling capacity control with TXV and Humidi-MiZer

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

Unit Length:..... **9' 7.875"**
 Unit Width:..... **5' 3.375"**
 Unit Height:..... **4' 10.75"**
 *** Total Operating Weight:..... **1960 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

Medium Electric Heat
 Condensate Overflow Switch
Medium Static Belt Drive with VFD Controller
 E-coat Al/Cu - Al/Cu
 SystemVu Unit Controller and system building automation
 Ultra LOW LEAK Enthalpy EconoMiSer w/ Barometric Relief
 Hinged Panels, Unpowered Convenience Outlet
 Non-Fused Disconnect and Thru-The-Base Connections
 Standard Packaging
 Humidi-MiZer™ Adaptive Dehumidification System

Warranty Information

5-Year compressor parts (STD.)
 1-Year parts (STD.)
 Start-up, First Unit
 Start-up, Each Additional Unit

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

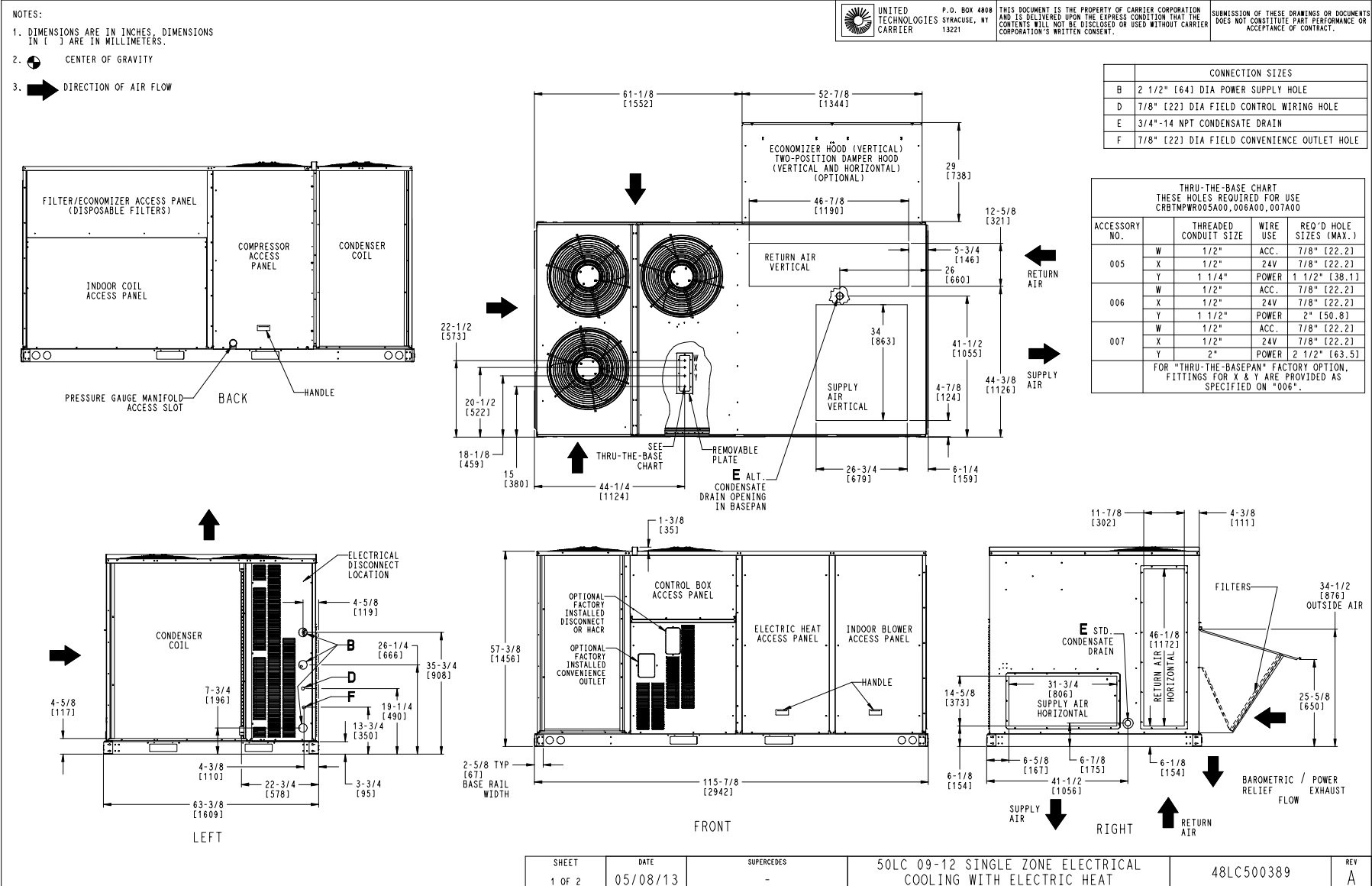
Ordering Information

Part Number	Description	Quantity
50LCEA12J2C6-4R4F0	Rooftop Unit	5
	Base Unit	
	Medium Electric Heat	
	Condensate Overflow Switch	
	Medium Static Belt Drive with VFD Controller	
	E-coat Al/Cu - Al/Cu	
	Hinged Panels, Unpowered Convenience Outlet	
	Non-Fused Disconnect and Thru-The-Base Connections	
	Humidi-MiZer™ Adaptive Dehumidification System	
	SystemVu controller, Ultra LOW LEAK EconoMiSer2 enthalpy economizer with barometric relief. SystemV	
Field Installed Accessories		
33CENTSEN	Enthalpy Transmitter	5
33ZCT55SPT	Space Temp. with Override	5
CRPWREXH081A00	Power Exhaust System	5
CRPECONV007B00	Hinged Access Door	5

Certified Drawing for RTU - 2-6

Project: BCF - St Petersburg, FL #1357
 Prepared By:

03/15/2022
 11:14AM



SHEET	DATE	SUPERCEDES	50LC 09-12 SINGLE ZONE ELECTRICAL COOLING WITH ELECTRIC HEAT	48LC500389	REV
1 OF 2	05/08/13	-			A

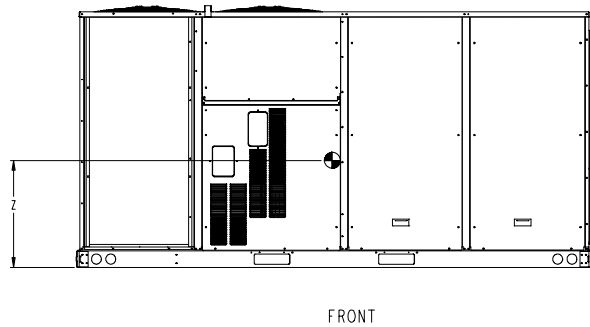
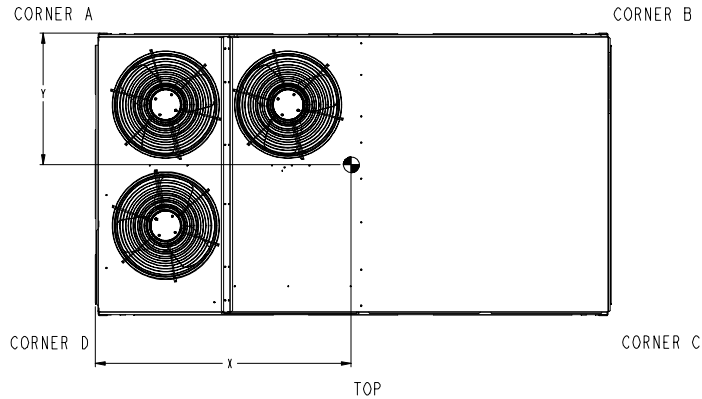
Certified Drawing for RTU - 2-6

Project: BCF - St Petersburg, FL #1357
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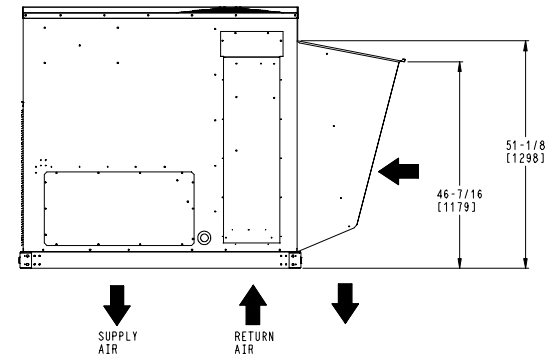
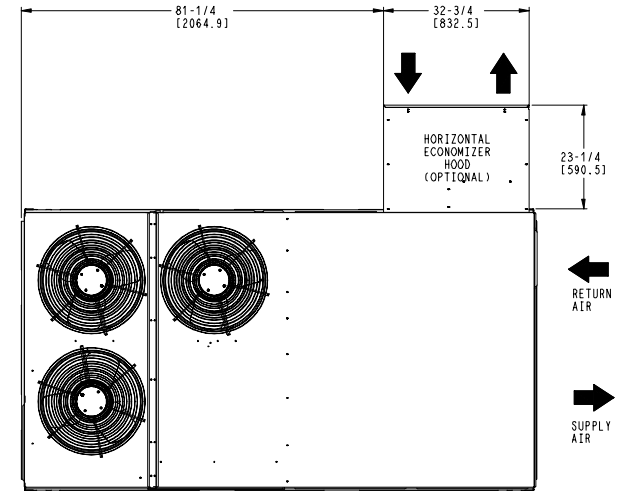
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UNIT	STD UNIT WEIGHT		CORNER WEIGHT (A)		CORNER WEIGHT (B)		CORNER WEIGHT (C)		CORNER WEIGHT (D)		C.G.		
	LBS.	KG.	LBS.	KG.	LBS.	KG.	LBS.	KG.	LBS.	KG.	X	Y	Z
50LC 09	1536	697	388	174	392	178	380	172	374	171	58 (1473)	32 (812)	20 5/8 (524)
50LC 12	1536	697	388	174	392	178	380	172	374	171	58 (1473)	32 (812)	20 5/8 (524)

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



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HORIZONTAL ECONOMIZER

SHEET 2 OF 2	DATE 05/08/13	SUPERCEDES -	50LC 09-12 SINGLE ZONE ELECTRICAL COOLING WITH ELECTRIC HEAT	48LC500389	REV A
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Certified Drawing for RTU - 2-6

Project: BCF - St Petersburg, FL #1357
 Prepared By:

03/15/2022
 11:14AM

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 - 2-6

Project: BCF - St Petersburg, FL #1357
 Prepared By:

03/15/2022
 11:14AM

Part Number: 50LCEA12J2C6-4R4F0

ARI EER: **13.10**
 IEER (Max Cooling at Normal Cooling Design Mode): **20.5**

Base Unit Dimensions

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

Operating Weight

Base Unit Weight: **1536** lb
 Medium Electric Heat: **62** lb
 Three stage cooling capacity control with TXV and Humidi-MiZer: **90** lb
 Medium Static Belt Drive with VFD Controller: **45** lb
 SystemVu Unit Controller and system building automation: **10** lb
 Ultra LOW LEAK Enthalpy EconoMi\$er w/ Barometric Relief: **103** lb
 Hinged Panels, Unpowered Convenience Outlet: **10** lb
 Non-Fused Disconnect and Thru-The-Base Connections: **19** lb

Accessories

Power Exhaust System: **85** lb

Total Operating Weight: **1960** lb

Unit

Unit Voltage-Phase-Hertz: **460-3-60**
 Air Discharge: **Vertical**
 Fan Drive Type: **Belt**
 Actual Airflow: **3600** 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: **57.3** F
 Evaporator Leaving Air WB: **56.5** F
 Evaporator Leaving Air Enthalpy: **24.05** BTU/lb
 Gross Cooling Capacity: **119.62** MBH
 Gross Sensible Capacity: **88.37** MBH
 Compressor Power Input: **7.48** kW
 Coil Bypass Factor: **0.020**

Heating Performance

Heating Airflow: **3600** CFM
 Entering Air Temp: **65.9** F
 Leaving Air Temp: **92.9** F
 Electric Heating Capacity: **30.80** kW

Supply Fan

External Static Pressure: **0.60** in wg
 Options / Accessories Static Pressure
 Electric Heaters: **0.02** in wg
 Humidi-MiZer Dehumidification System: **0.05** in wg
 Economizer: **0.02** in wg
 Total Application Static (ESP + Unit Opts/Acc.): **0.68** in wg
 Fan RPM: **591**
 Fan Power: **1.21** BHP

NOTE: **Selected IFM RPM Range: 547 - 757**

Performance Summary For RTU - 2-6

Project: BCF - St Petersburg, FL #1357
 Prepared By:

03/15/2022
 11:14AM

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: **6.1**
 Compressor #1 LRA: **41**
 Compressor #2 RLA: **8.2**
 Compressor #2 LRA: **66**
 Actual Electric Heater kW: **30.8**
 Electric Heater FLA: **40.3**
 Indoor Fan Motor Type: **MED**
 Indoor Fan Motor FLA: **3.8**
 Power Supply MCA: **58**
 Power Supply MOCP (Fuse or HACR): **60**
 Disconnect Size FLA: **53**
 Disconnect Size LRA: **142**
 Electrical Convenience Outlet: **None**
 Power Exhaust [Kit Qty / FLA (ea kit)]: **1 / 1.8**
 Outdoor Fan [Qty / FLA (ea)]: **3 / 1.8**

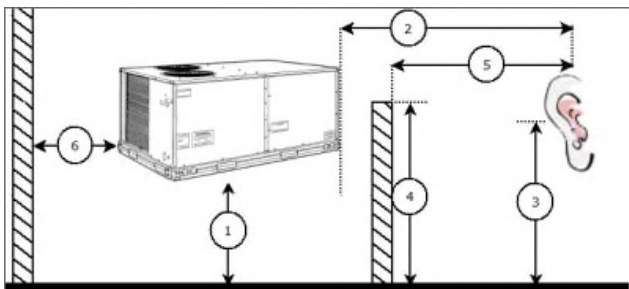
Control Panel SCCR: 5kA RMS at Rated Symmetrical Voltage

Acoustics

Sound Power Levels, db re 10E-12 Watts

	Discharge	Inlet	Outdoor
63 Hz	89.4	85.7	89.3
125 Hz	84.4	77.4	86.0
250 Hz	68.5	64.1	82.9
500 Hz	68.7	63.9	80.7
1000 Hz	66.1	61.9	78.5
2000 Hz	63.6	56.4	73.6
4000 Hz	64.4	53.5	69.6
8000 Hz	58.6	47.6	64.5
A-Weighted	73.9	68.0	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 - 2-6

Project: BCF - St Petersburg, FL #1357
Prepared By:

03/15/2022
11:14AM

- 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

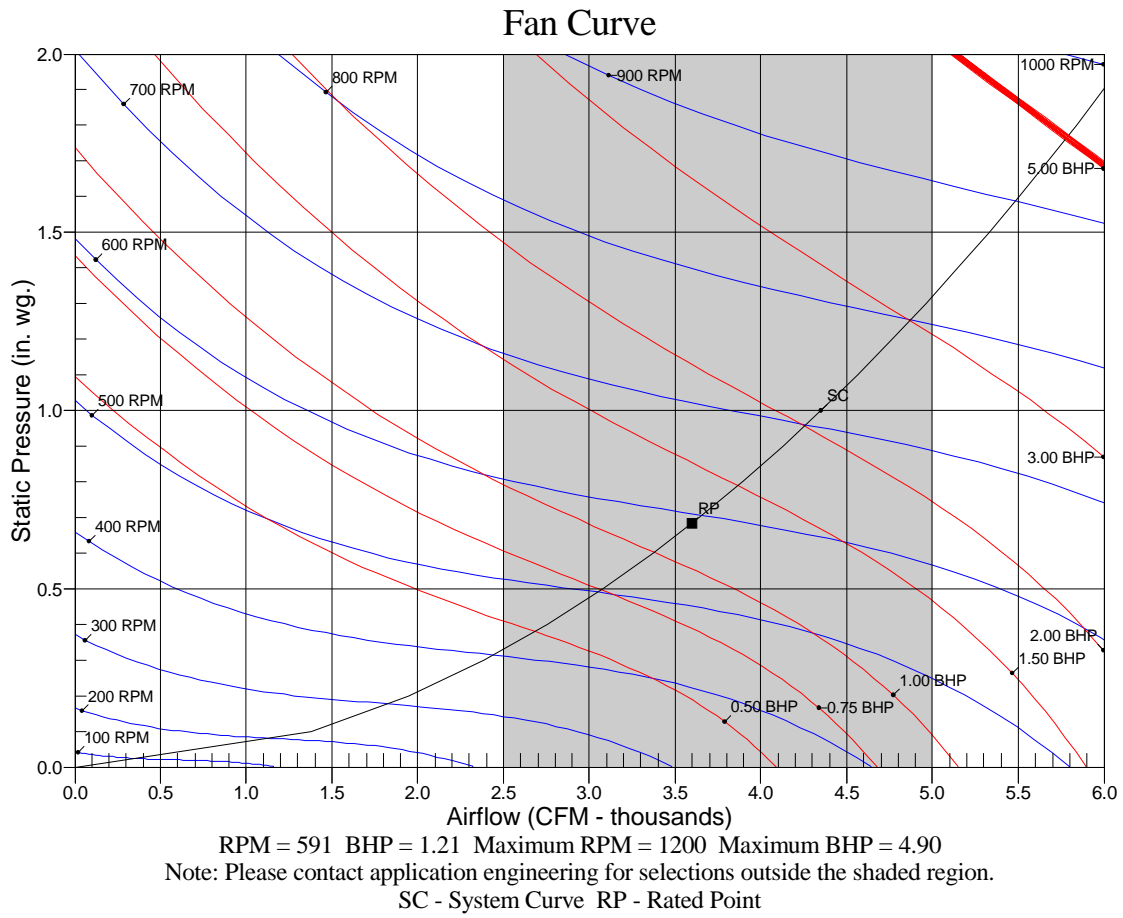
- A Sound Power Levels at Unit's Acoustic Center, Lw
- B A-Weighted Sound Power Levels at Unit's Acoustic Center, LwA
- C Sound Pressure Levels at Specific Distance from Unit, Lp
- D A-Weighted Sound Pressure Levels at Specific Distance from Unit, LpA

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 - 2-6

Project: BCF - St Petersburg, FL #1357
Prepared By:

03/15/2022
11:14AM



RTU - 7,9

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

Unit Report For RTU - 7,9

Project: BCF - St Petersburg, FL #1357
 Prepared By:

03/15/2022
 11:14AM

Unit Parameters

Unit Model:..... **50LCFA07J2C6-4R4F0**
 Unit Size:.....**07 (6 Tons)**
 Volts-Phase-Hertz: **460-3-60**
 Heating Type:..... **Electric**
 Duct Cfg:..... **Vertical Supply / Vertical Return**
 High Electric Heat
 Three stage cooling capacity control with TXV and
 Humidi-MiZer

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

Unit Length:.....**7' 4.125"**
 Unit Width:.....**4' 11.5"**
 Unit Height:**4' 1.375"**
 *** Total Operating Weight: **1355 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

High Electric Heat
 Condensate Overflow Switch
 Medium Static Belt Drive with VFD Controller
 E-coat Al/Cu - Al/Cu
 SystemVu Unit Controller and system building automation
 Ultra LOW LEAK Enthalpy EconoMiSer w/ Barometric Relief
 Hinged Panels, Unpowered Convenience Outlet
 Non-Fused Disconnect and Thru-The-Base Connections
 Standard Packaging
 Humidi-MiZer™ Adaptive Dehumidification System

Warranty Information

5-Year compressor parts (STD.)
 1-Year parts (STD.)
 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
50LCFA07J2C6-4R4F0	Rooftop Unit	2
	Base Unit	
	High Electric Heat	
	Condensate Overflow Switch	
	Medium Static Belt Drive with VFD Controller	
	E-coat Al/Cu - Al/Cu	
	Hinged Panels, Unpowered Convenience Outlet	
	Non-Fused Disconnect and Thru-The-Base Connections	
	Humidi-MiZer™ Adaptive Dehumidification System	
	SystemVu controller, Ultra LOW LEAK EconoMiSer2 enthalpy economizer with barometric relief. SystemV	
Field Installed Accessories		
33CSENSEN	Enthalpy Transmitter	2
33ZCT55SPT	Space Temp. with Override	2
CRPWREXH023A01	Power Exhaust System	2
CRPECONV004A00	Hinged Access Door	2

Certified Drawing for RTU - 7,9

Project: BCF - St Petersburg, FL #1357
 Prepared By:

03/15/2022
 11:14AM

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

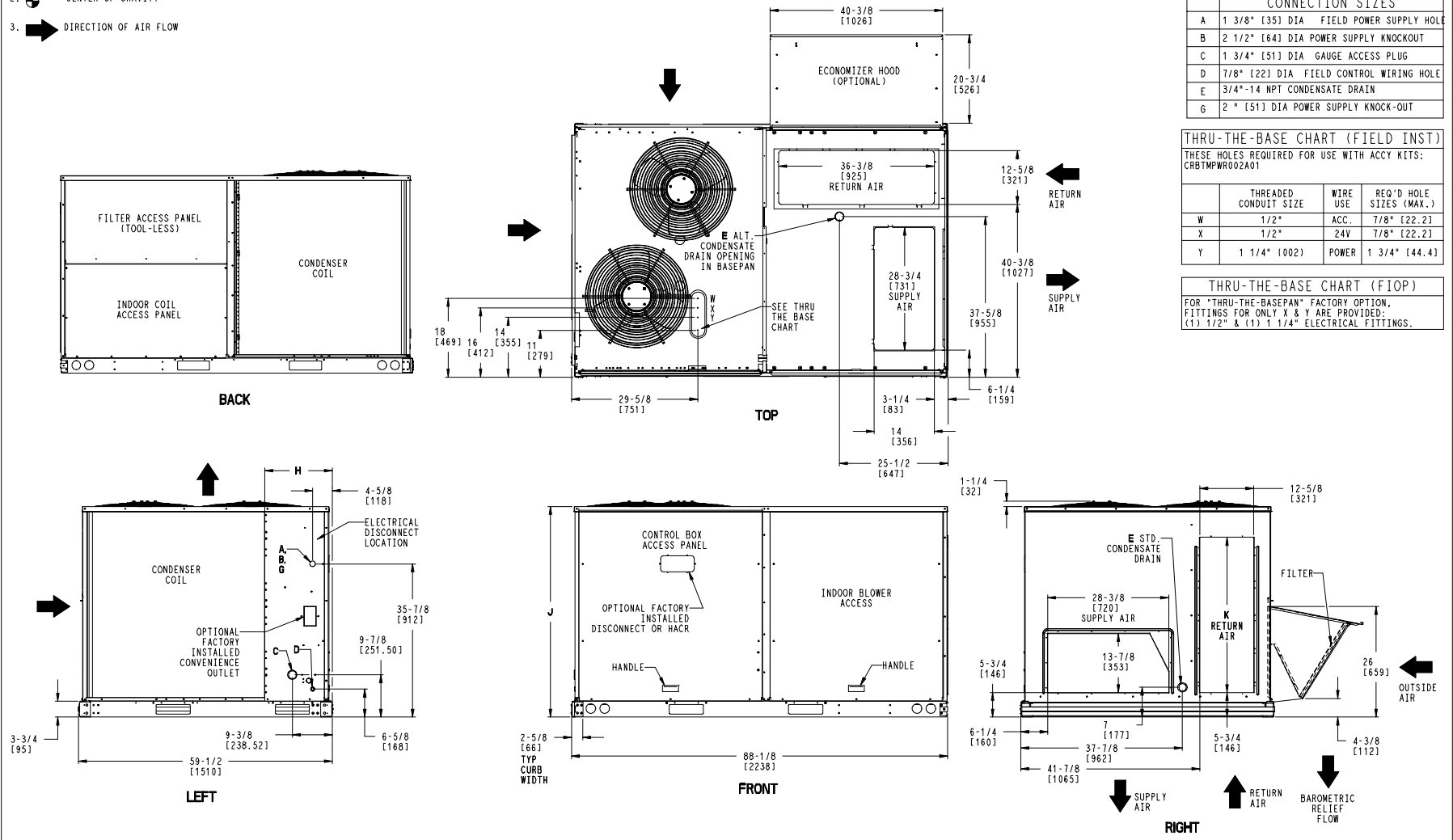
UNIT	OUTDOOR COIL TYPE	J	K	H
50LC 07	RTPF	49 3/8 [1253]	36 3/8 [925]	15 7/8 [403]

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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
G	2" [51] DIA POWER SUPPLY KNOCK-OUT

THRU-THE-BASE CHART (FIELD INST)			
THESE HOLES REQUIRED FOR USE WITH ACCY KITS: CRBTMPW002A01			
	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" [1002]	POWER	1 3/4" [44.4]

THRU-THE-BASE CHART (FIOP)
 FOR "THRU-THE-BASEPAN" FACTORY OPTION, FITTINGS FOR ONLY X & Y ARE PROVIDED:
 (1) 1/2" & (1) 1 1/4" ELECTRICAL FITTINGS.



SHEET	DATE	SUPERCEDES	DESCRIPTION	UNIT	REV
1 OF 2	7/11/14	5/8/13	50LC 07 SINGLE ZONE ELECTRICAL COOLING WITH ELECTRIC HEAT	48LC500392	B

Certified Drawing for RTU - 7,9

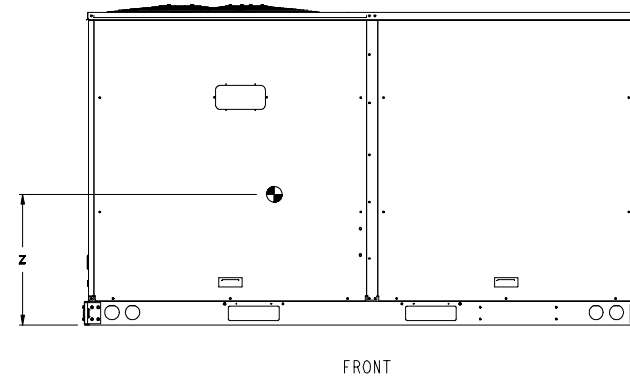
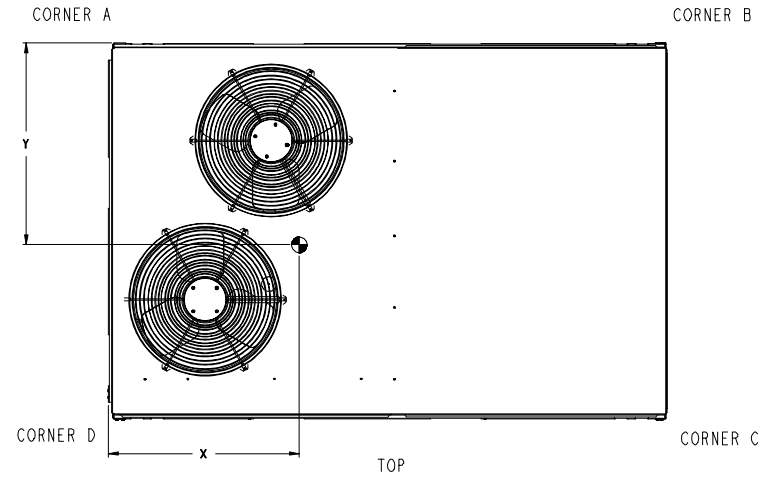
Project: BCF - St Petersburg, FL #1357
 Prepared By:

03/15/2022
 11:14AM

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			
50LC 07	RTPF	967	439	211	96	191	87	268	122	297	135	41 3/4	[1060]	24 3/4	[629]	20 3/4	[527]

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

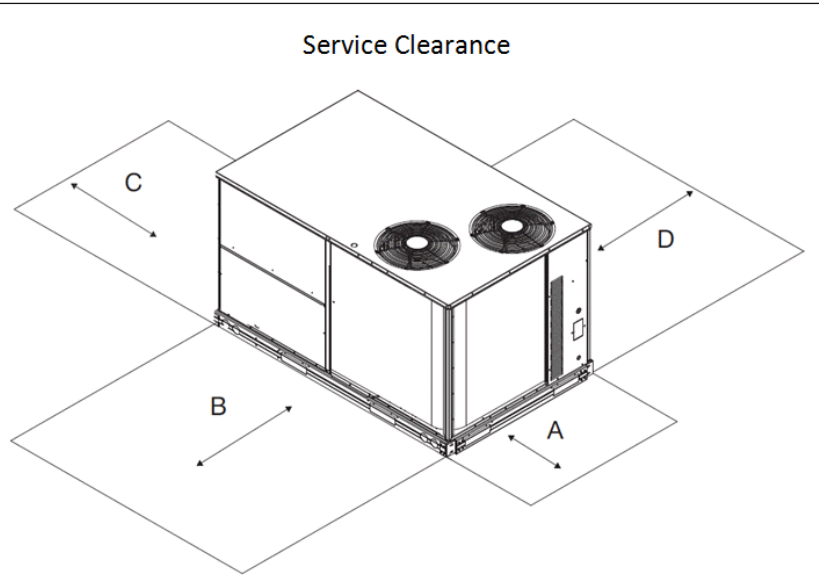


SHEET 2 OF 2	DATE 7/11/14	SUPERCEDES 5/8/13	50LC 07 SINGLE ZONE ELECTRICAL COOLING WITH ELECTRIC HEAT	48LC500392	REV B
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Certified Drawing for RTU - 7,9

Project: BCF - St Petersburg, FL #1357
 Prepared By:

03/15/2022
 11:14AM



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 - 7,9

Project: BCF - St Petersburg, FL #1357
 Prepared By:

03/15/2022
 11:14AM

Part Number:50LCFA07J2C6-4R4F0

ARI EER: **13.10**
 IEER (Max Cooling at Normal Cooling Design Mode): **20.5**

Base Unit Dimensions

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

Operating Weight

Base Unit Weight: **967** lb
 High Electric Heat: **105** lb
 Three stage cooling capacity control with TXV and Humidi-MiZer: **80** lb
 Medium Static Belt Drive with VFD Controller: **15** lb
 SystemVu Unit Controller and system building automation: **10** lb
 Ultra LOW LEAK Enthalpy EconoMi\$er w/ Barometric Relief: **74** lb
 Hinged Panels, Unpowered Convenience Outlet: **10** lb
 Non-Fused Disconnect and Thru-The-Base Connections: **19** lb

Accessories

Power Exhaust System: **75** lb

 Total Operating Weight: **1355** lb

Unit

Unit Voltage-Phase-Hertz: **460-3-60**
 Air Discharge: **Vertical**
 Fan Drive Type: **Belt**
 Actual Airflow: **2400** 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: **57.6** F
 Evaporator Leaving Air WB: **57.3** F
 Evaporator Leaving Air Enthalpy: **24.59** BTU/lb
 Gross Cooling Capacity: **74.01** MBH
 Gross Sensible Capacity: **57.94** MBH
 Compressor Power Input: **4.48** kW
 Coil Bypass Factor: **0.053**

Heating Performance

Heating Airflow: **2400** CFM
 Entering Air Temp: **63.9** F
 Leaving Air Temp: **94.7** F
 Electric Heating Capacity: **23.40** kW

Supply Fan

External Static Pressure: **0.70** in wg
 Options / Accessories Static Pressure
 Electric Heaters: **0.04** in wg
 Humidi-MiZer Dehumidification System: **0.11** in wg
 Economizer: **0.09** in wg
 Total Application Static (ESP + Unit Opts/Acc.): **0.94** in wg
 Fan RPM: **732**
 Fan Power: **0.97** BHP
 NOTE: **Selected IFM RPM Range: 539 - 809**

Performance Summary For RTU - 7,9

Project: BCF - St Petersburg, FL #1357
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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: **0.40** in wg
 Max. Air To Exhaust: **2850** CFM

Electrical Data

Voltage Range: **414 - 506**
 Compressor #1 RLA: **5.1**
 Compressor #1 LRA: **28**
 Compressor #2 RLA: **6**
 Compressor #2 LRA: **44**
 Actual Electric Heater kW: **23.4**
 Electric Heater FLA: **30.7**
 Indoor Fan Motor Type: **MED**
 Indoor Fan Motor FLA: **2.9**
 Power Supply MCA: **45**
 Power Supply MOCP (Fuse or HACR): **45**
 Disconnect Size FLA: **41**
 Disconnect Size LRA: **89**
 Electrical Convenience Outlet: **None**
 Power Exhaust [Kit Qty / FLA (ea kit)]: **1 / 1.8**
 Outdoor Fan [Qty / FLA (ea)]: **2 / 1.8**

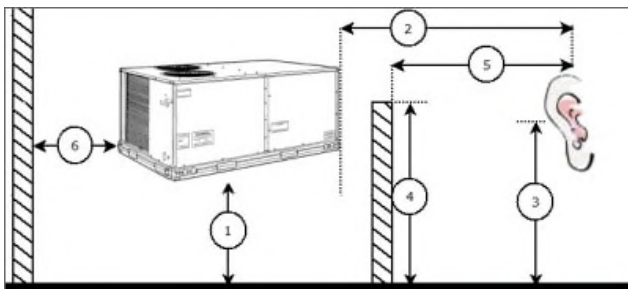
Control Panel SCCR: 5kA RMS at Rated Symmetrical Voltage

Acoustics

Sound Power Levels, db re 10E-12 Watts

	Discharge	Inlet	Outdoor
63 Hz	90.7	85.6	88.6
125 Hz	81.4	77.4	85.0
250 Hz	67.2	64.7	81.6
500 Hz	63.1	62.4	79.5
1000 Hz	60.7	60.0	77.4
2000 Hz	57.7	54.4	74.1
4000 Hz	57.5	52.0	71.0
8000 Hz	54.6	47.2	66.3
A-Weighted	70.3	67.0	82.0

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 - 7,9

Project: BCF - St Petersburg, FL #1357

03/15/2022

Prepared By:

11:14AM

- 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	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

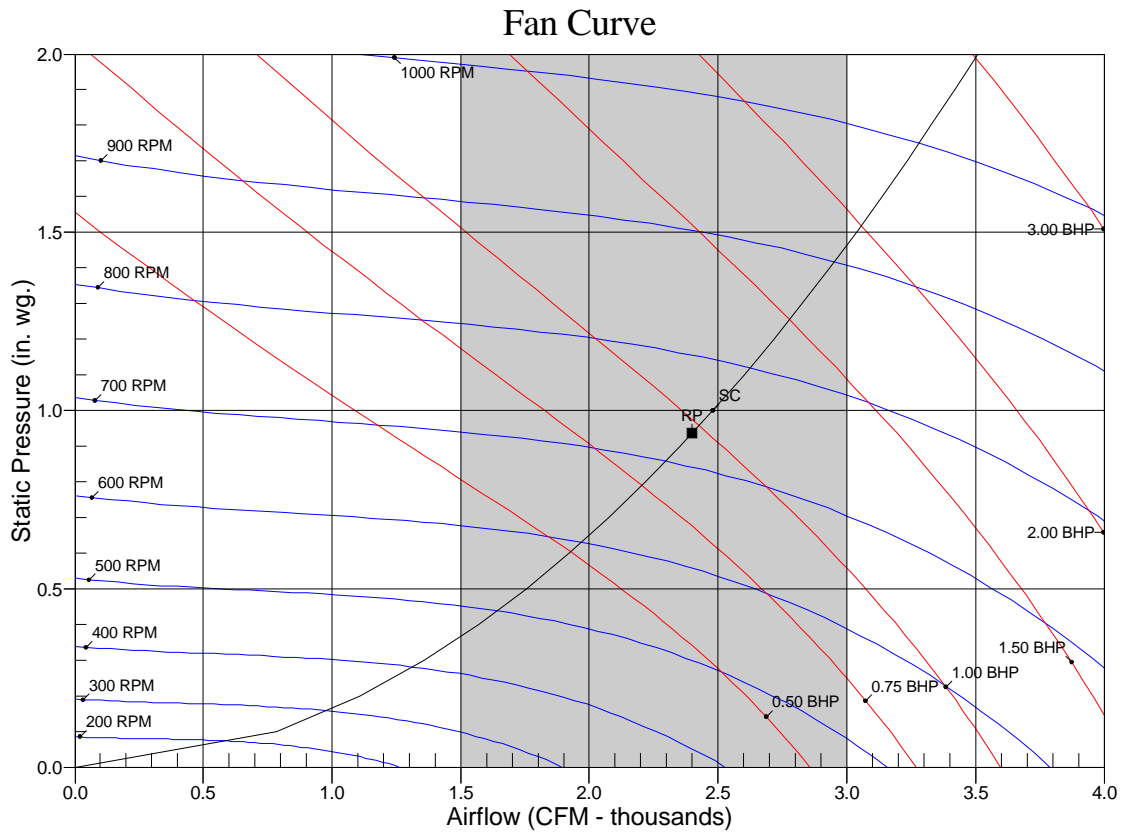
- A Sound Power Levels at Unit's Acoustic Center, Lw
- B A-Weighted Sound Power Levels at Unit's Acoustic Center, LwA
- C Sound Pressure Levels at Specific Distance from Unit, Lp
- D A-Weighted Sound Pressure Levels at Specific Distance from Unit, LpA

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.

Performance Summary For RTU - 7,9

Project: BCF - St Petersburg, FL #1357
Prepared By:

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RPM = 732 BHP = 0.97 Maximum RPM = 1250 Maximum BHP = 2.90
Note: Please contact application engineering for selections outside the shaded region.
SC - System Curve RP - Rated Point

RTU - 8

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

Unit Report For RTU - 8

Project: BCF - St Petersburg, FL #1357
 Prepared By:

03/15/2022
 11:14AM

Unit Parameters

Unit Model:..... **50LCEA12J2C6-4R4F0**
 Unit Size:..... **12 (10.0 tons)**
 Volts-Phase-Hertz: **460-3-60**
 Heating Type:..... **Electric**
 Duct Cfg:..... **Vertical Supply / Vertical Return**
 Medium Electric Heat
 Three stage cooling capacity control with TXV and
 Humidi-MiZer

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

Unit Length:..... **9' 7.875"**
 Unit Width:..... **5' 3.375"**
 Unit Height: **4' 10.75"**
 *** Total Operating Weight: **1960 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

Medium Electric Heat
 Condensate Overflow Switch
 Medium Static Belt Drive with VFD Controller
 E-coat Al/Cu - Al/Cu
 SystemVu Unit Controller and system building automation
 Ultra LOW LEAK Enthalpy EconoMiSer w/ Barometric Relief
 Hinged Panels, Unpowered Convenience Outlet
 Non-Fused Disconnect and Thru-The-Base Connections
 Standard Packaging
 Humidi-MiZer™ Adaptive Dehumidification System

Warranty Information

5-Year compressor parts (STD.)
 1-Year parts (STD.)
 Start-up, Each Additional Unit

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

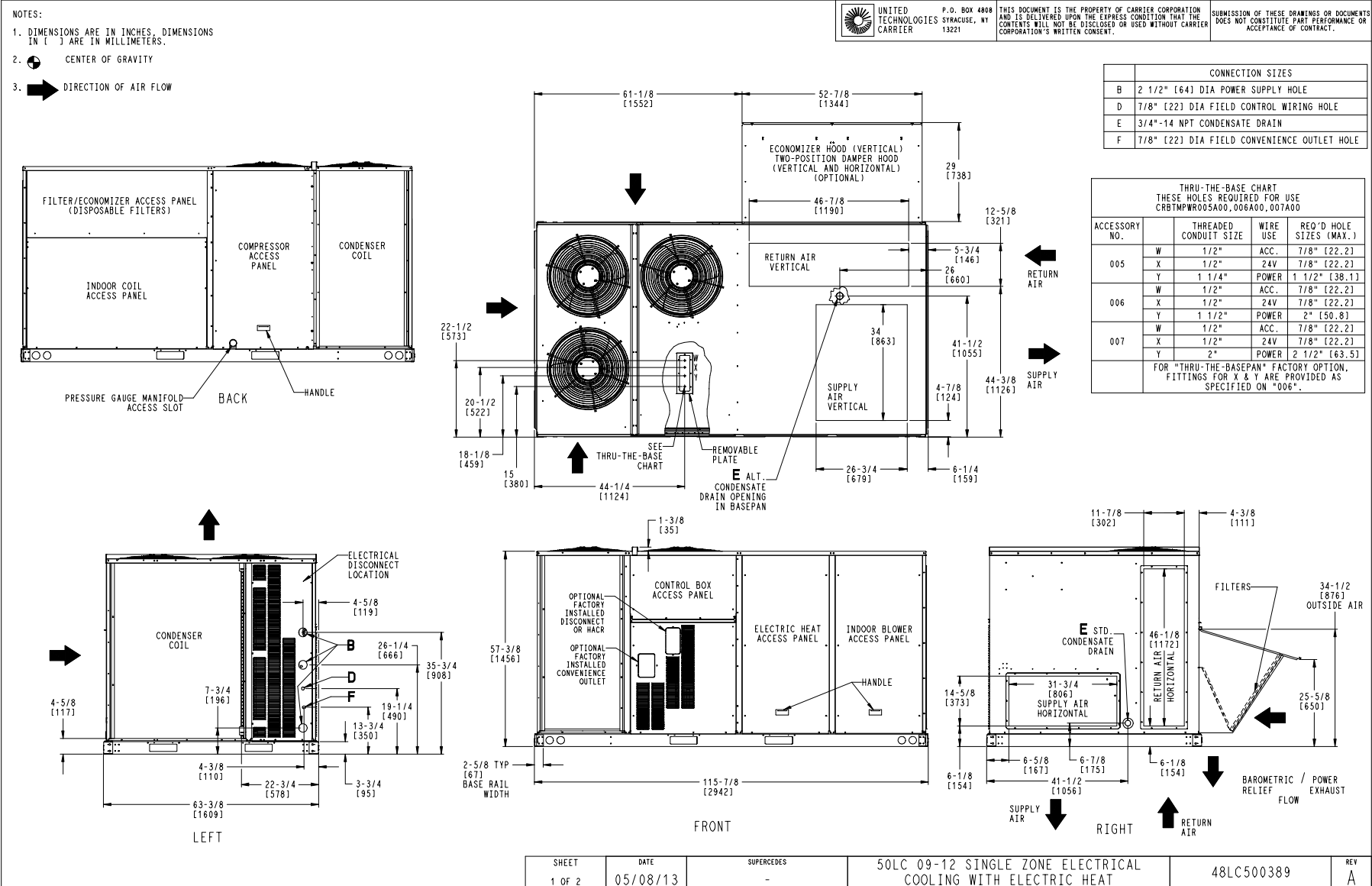
Ordering Information

Part Number	Description	Quantity
50LCEA12J2C6-4R4F0	Rooftop Unit	1
	Base Unit	
	Medium Electric Heat	
	Condensate Overflow Switch	
	Medium Static Belt Drive with VFD Controller	
	E-coat Al/Cu - Al/Cu	
	Hinged Panels, Unpowered Convenience Outlet	
	Non-Fused Disconnect and Thru-The-Base Connections	
	Humidi-MiZer™ Adaptive Dehumidification System	
	SystemVu controller, Ultra LOW LEAK EconoMiSer2 enthalpy economizer with barometric relief. SystemV	
Field Installed Accessories		
33CSENSEN	Enthalpy Transmitter	1
33ZCT55SPT	Space Temp. with Override	1
CRPWREXH081A00	Power Exhaust System	1
CRPECONV007B00	Hinged Access Door	1

Certified Drawing for RTU - 8

Project: BCF - St Petersburg, FL #1357
 Prepared By:

03/15/2022
 11:14AM



SHEET	DATE	SUPERCEDES	50LC 09-12 SINGLE ZONE ELECTRICAL COOLING WITH ELECTRIC HEAT	48LC500389	REV
1 OF 2	05/08/13	-			A

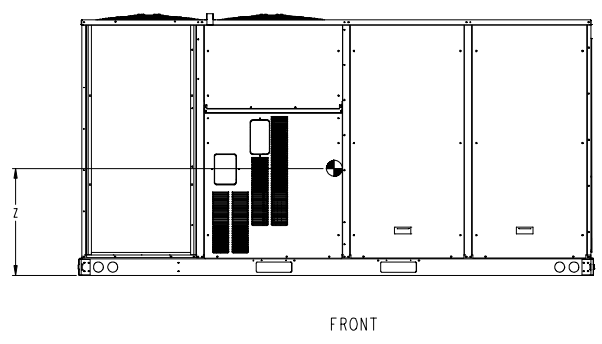
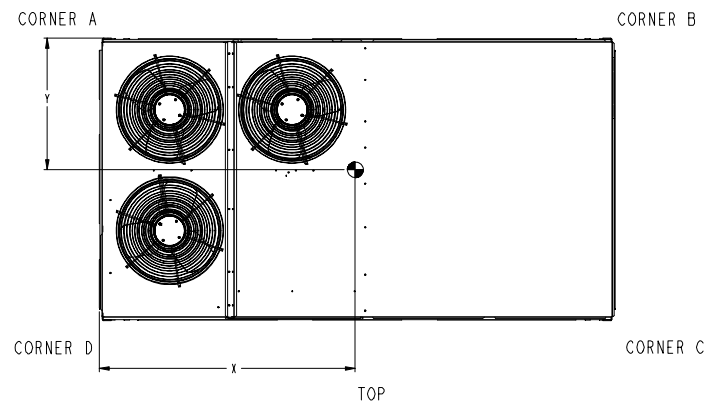
Certified Drawing for RTU - 8

Project: BCF - St Petersburg, FL #1357
 Prepared By:

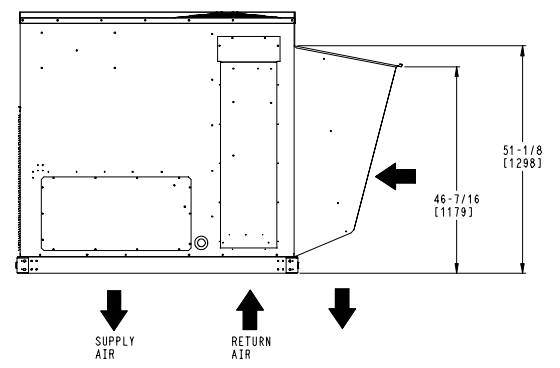
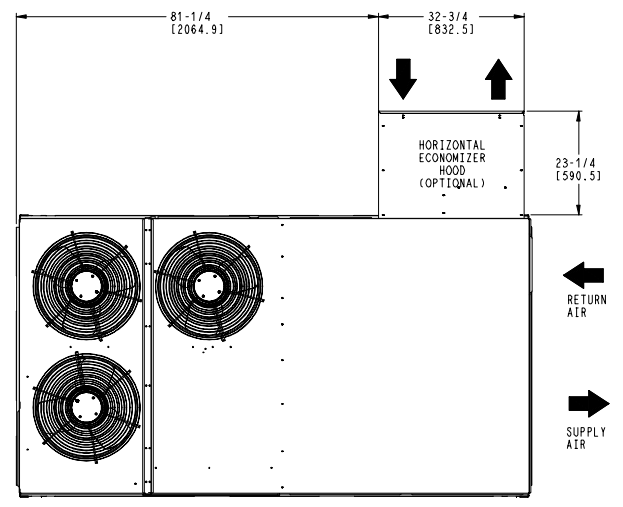
03/15/2022
 11:14AM

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
50LC 09	1536	697	388	174	392	178	380	172	374	171	58 (1473)	32 (812)	20 5/8 (524)
50LC 12	1536	697	388	174	392	178	380	172	374	171	58 (1473)	32 (812)	20 5/8 (524)

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



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SHEET 2 OF 2	DATE 05/08/13	SUPERCEDES -	50LC 09-12 SINGLE ZONE ELECTRICAL COOLING WITH ELECTRIC HEAT	48LC500389	REV A
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Certified Drawing for RTU - 8

Project: BCF - St Petersburg, FL #1357
 Prepared By:

03/15/2022
 11:14AM

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 - 8

Project: BCF - St Petersburg, FL #1357
 Prepared By:

03/15/2022
 11:14AM

Part Number:50LCEA12J2C6-4R4F0

ARI EER: **13.10**
 IEER (Max Cooling at Normal Cooling Design Mode): **20.5**

Base Unit Dimensions

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

Operating Weight

Base Unit Weight: **1536** lb
 Medium Electric Heat: **62** lb
 Three stage cooling capacity control with TXV and Humidi-MiZer: **90** lb
 Medium Static Belt Drive with VFD Controller: **45** lb
 SystemVu Unit Controller and system building automation: **10** lb
 Ultra LOW LEAK Enthalpy EconoMi\$er w/ Barometric Relief: **103** lb
 Hinged Panels, Unpowered Convenience Outlet: **10** lb
 Non-Fused Disconnect and Thru-The-Base Connections: **19** lb

Accessories

Power Exhaust System: **85** lb

 Total Operating Weight: **1960** lb

Unit

Unit Voltage-Phase-Hertz: **460-3-60**
 Air Discharge: **Vertical**
 Fan Drive Type: **Belt**
 Actual Airflow: **4000** 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: **58.2** F
 Evaporator Leaving Air WB: **57.4** F
 Evaporator Leaving Air Enthalpy: **24.67** BTU/lb
 Gross Cooling Capacity: **121.82** MBH
 Gross Sensible Capacity: **94.09** MBH
 Compressor Power Input: **7.49** kW
 Coil Bypass Factor: **0.026**

Heating Performance

Heating Airflow: **4000** CFM
 Entering Air Temp: **63.9** F
 Leaving Air Temp: **88.2** F
 Electric Heating Capacity: **30.80** kW

Supply Fan

External Static Pressure: **0.80** in wg
 Options / Accessories Static Pressure
 Electric Heaters: **0.02** in wg
 Humidi-MiZer Dehumidification System: **0.06** in wg
 Economizer: **0.02** in wg
 Total Application Static (ESP + Unit Opts/Acc.): **0.90** in wg
 Fan RPM: **674**
 Fan Power: **1.77** BHP
 NOTE: **Selected IFM RPM Range: 547 - 757**

Performance Summary For RTU - 8

Project: BCF - St Petersburg, FL #1357
 Prepared By:

03/15/2022
 11:14AM

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: **6.1**
 Compressor #1 LRA: **41**
 Compressor #2 RLA: **8.2**
 Compressor #2 LRA: **66**
 Actual Electric Heater kW: **30.8**
 Electric Heater FLA: **40.3**
 Indoor Fan Motor Type: **MED**
 Indoor Fan Motor FLA: **3.8**
 Power Supply MCA: **58**
 Power Supply MOCP (Fuse or HACR): **60**
 Disconnect Size FLA: **53**
 Disconnect Size LRA: **142**
 Electrical Convenience Outlet: **None**
 Power Exhaust [Kit Qty / FLA (ea kit)]: **1 / 1.8**
 Outdoor Fan [Qty / FLA (ea)]: **3 / 1.8**

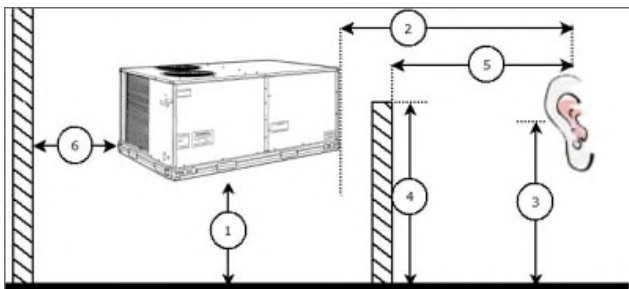
Control Panel SCCR: 5kA RMS at Rated Symmetrical Voltage

Acoustics

Sound Power Levels, db re 10E-12 Watts

	Discharge	Inlet	Outdoor
63 Hz	89.8	86.3	89.3
125 Hz	85.7	79.1	86.0
250 Hz	71.0	65.7	82.9
500 Hz	71.1	65.6	80.7
1000 Hz	69.2	64.1	78.5
2000 Hz	66.3	58.4	73.6
4000 Hz	67.4	55.8	69.6
8000 Hz	62.5	49.7	64.5
A-Weighted	76.2	69.7	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 - 8

Project: BCF - St Petersburg, FL #1357
 Prepared By:

03/15/2022
 11:14AM

- 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

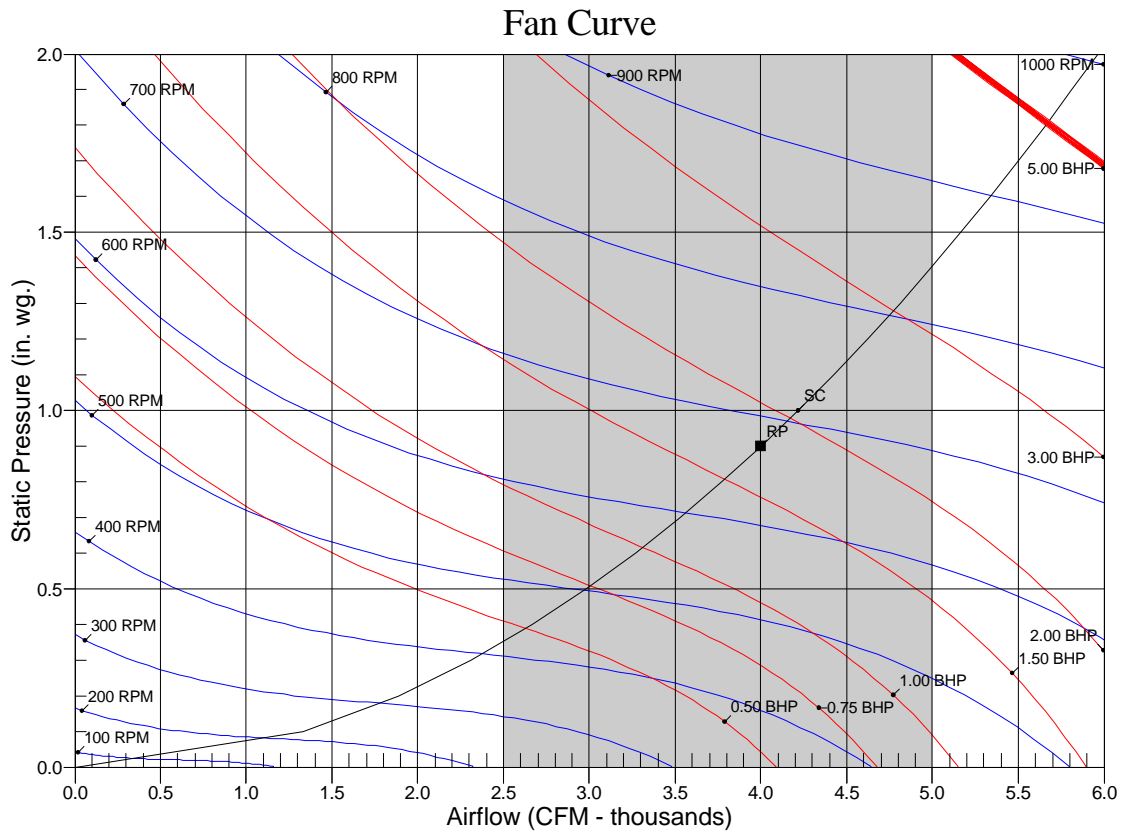
- A Sound Power Levels at Unit's Acoustic Center, Lw
- B A-Weighted Sound Power Levels at Unit's Acoustic Center, LwA
- C Sound Pressure Levels at Specific Distance from Unit, Lp
- D A-Weighted Sound Pressure Levels at Specific Distance from Unit, LpA

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 - 8

Project: BCF - St Petersburg, FL #1357
Prepared By:

03/15/2022
11:14AM



RPM = 674 BHP = 1.77 Maximum RPM = 1200 Maximum BHP = 4.90
Note: Please contact application engineering for selections outside the shaded region.
SC - System Curve RP - Rated Point

RTU - 10

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

Unit Report For RTU - 10

Project: BCF - St Petersburg, FL #1357
 Prepared By:

03/15/2022
 11:14AM

Unit Parameters

Unit Model:..... **50GCQM04J2C6-3W4F0**
 Unit Size:..... **04 (3 Tons)**
 Volts-Phase-Hertz: **460-3-60**
 Heating Type:..... **Heat Pump**
 Duct Cfg:..... **Vertical Supply / Vertical Return**
 Two Stage Cooling Models

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

Unit Length:..... **6' 2.375"**
 Unit Width:..... **3' 10.625"**
 Unit Height: **2' 9.375"**
 *** Total Operating Weight: **537 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

Condensate Overflow Switch
 Direct Drive - EcoBlue - Medium Static
 E-coat Al/Cu - Al/Cu
 SystemVu Controls
 Enthalpy Ultra Low Leak Econo w/Baro Relief
 Hinged Panels and Unpowered Convenience Outlet
 Non-Fused Disconnect and Thru-The-Base Connections
 Standard Packaging

Warranty Information

5-Year compressor parts (STD.)
 1-Year parts (STD.)
 Start-up, First Unit

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

Ordering Information

Part Number	Description	Quantity
50GCQM04J2C6-3W4F0	Rooftop Unit	1
	Base Unit	
	Condensate Overflow Switch	
	Direct Drive - EcoBlue - Medium Static	
	E-coat Al/Cu - Al/Cu	
	Hinged Panels and Unpowered Convenience Outlet	
	Non-Fused Disconnect and Thru-The-Base Connections	
	SystemVu controller, Ultra LOW LEAK EconoMi\$er2 enthalpy economizer with barometric relief. SystemV	
Field Installed Accessories		
33CSENSEN	Enthalpy Transmitter	1
33ZCT55SPT	Space Temp. with Override	1

Certified Drawing for RTU - 10

Project: BCF - St Petersburg, FL #1357
 Prepared By:

03/15/2022
 11:14AM

- 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
50GCO*04	33 3/8 [847]	18 5/8 [472]
50GCO*05	41 3/8 [1051]	18 5/8 [472]
50GCO*06	41 3/8 [1051]	18 5/8 [472]

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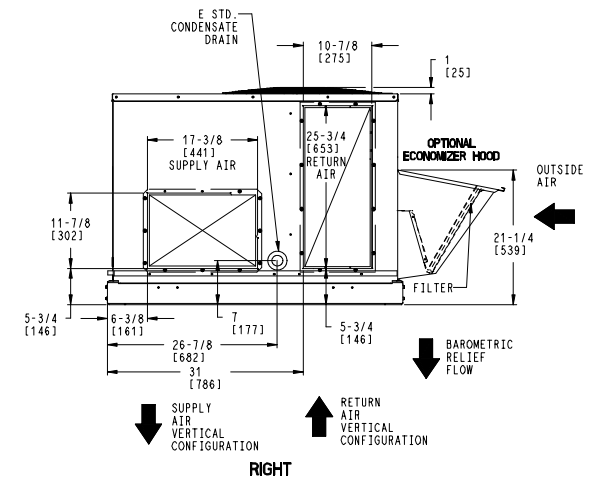
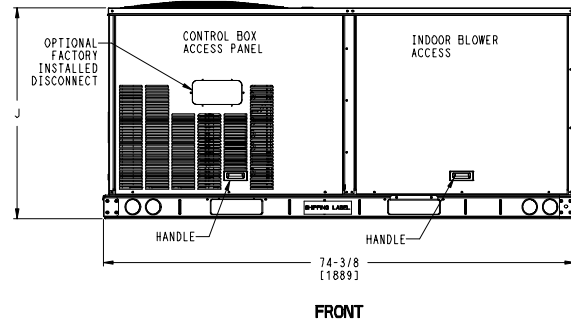
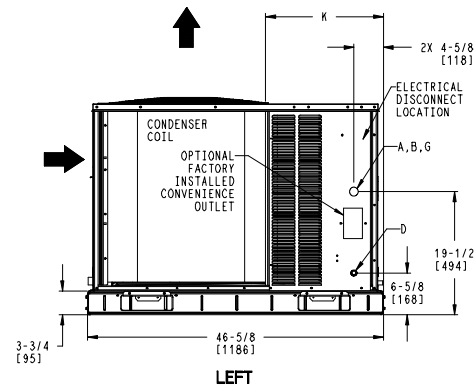
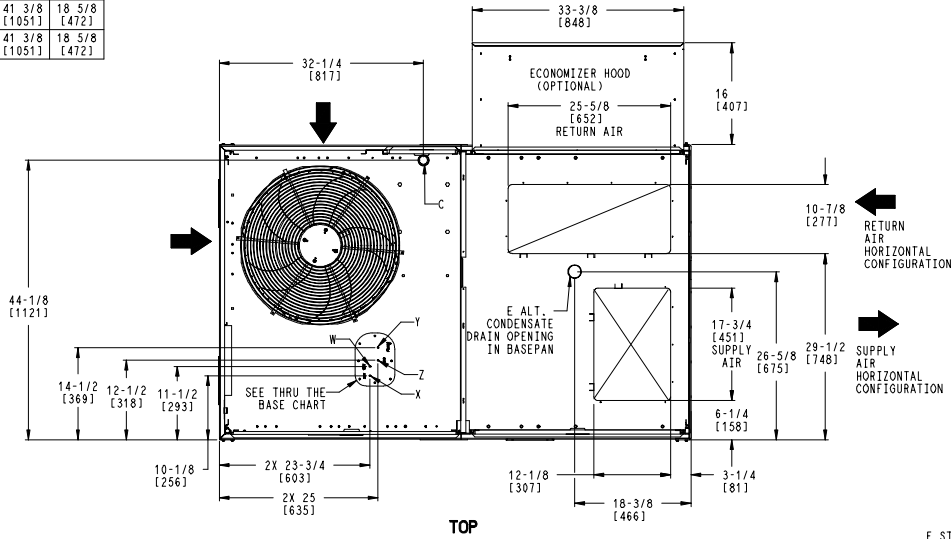
CONNECTION SIZES	
A	1 3/8" [35] DIA FIELD POWER SUPPLY HOLE
B	2" [51] DIA POWER SUPPLY KNOCKOUT
C	1 3/4" [44] DIA GAUGE ACCESS PLUG
D	7/8" [22] DIA FIELD CONTROL WIRING HOLE
E	3/4"-14 NPT CONDENSATE DRAIN
G	2 1/2" [64] DIA POWER SUPPLY KNOCK-OUT

THRU-THE-BASE CHART THESE HOLES REQUIRED FOR USE CRBTMPWRO08A00, 009A00			
	THREADED CONDUIT SIZE	WIRE USE	REQ'D HOLE SIZE (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	DESCRIPTION	PROJECT	REV
U.S. ECCN: NSR	1 OF 3	08/15/19	-	50GCO 04-06 SINGLE PACKAGE HEAT PUMP	48TC003351	-

Certified Drawing for RTU - 10

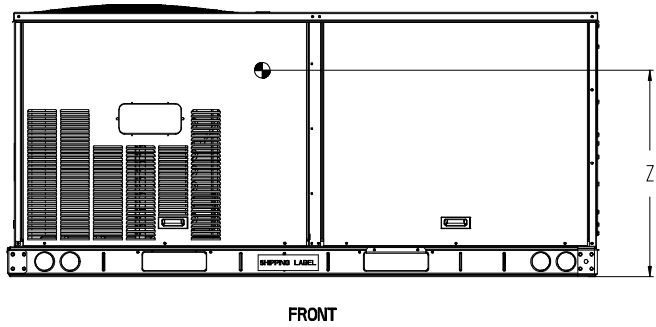
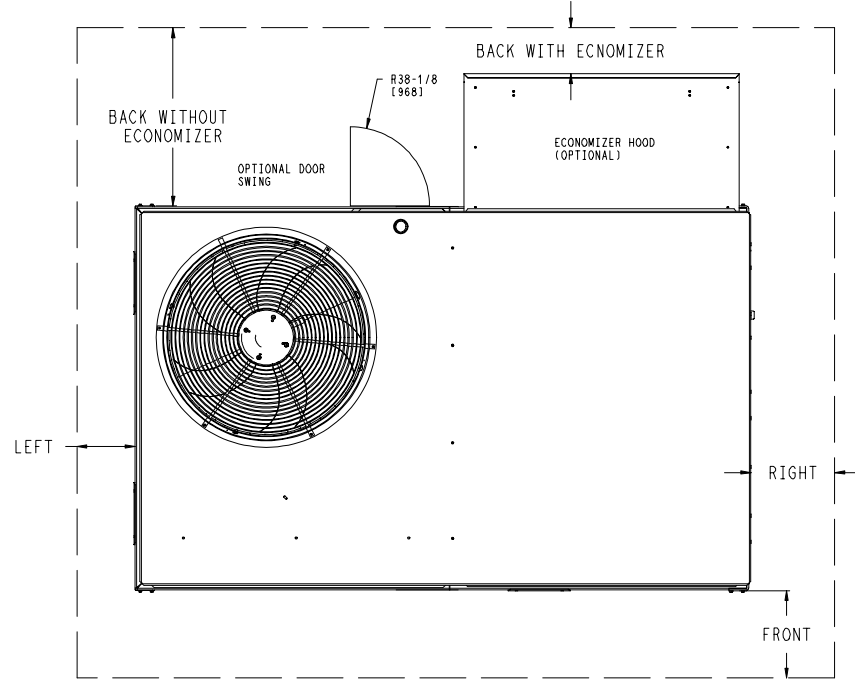
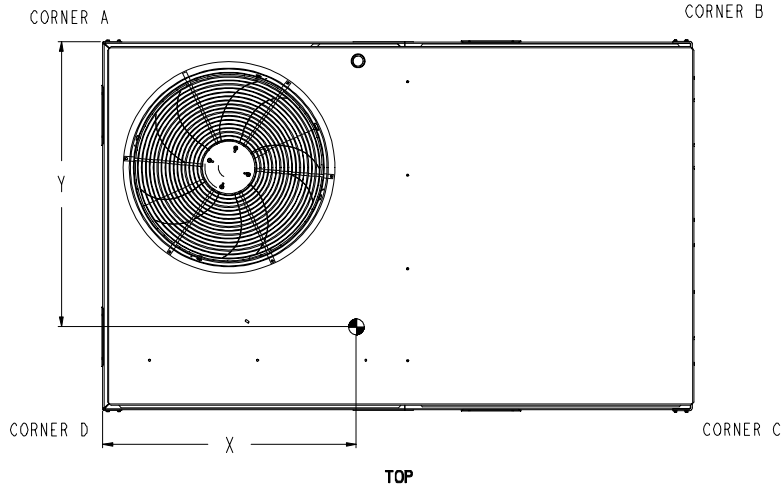
Project: BCF - St Petersburg, FL #1357
 Prepared By:

03/15/2022
 11:14AM

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	
50GCO*04	475	215	128	58	120	54	110	50	117	53	36 [914]	22 3/8 [568]	16 1/8 [410]	
50GCO*05	590	268	162	73	147	67	134	61	148	67	35 3/8 [898]	22 5/16 [557]	16 1/2 [419]	
50GCO*06	596	270	163	74	148	67	125	61	149	68	35 3/8 [898]	22 5/16 [557]	16 1/2 [419]	

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



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

SURFACE	CLEARANCE		OPERATING CLEARANCE
	SERVICE WITH CONDUCTIVE BARRIER	SERVICE WITH NONCONDUCTIVE BARRIER	
FRONT	48 [1219mm]	36 [914mm]	18 [457mm]
LEFT	48 [1219mm]	42 [1067mm]	18 [457mm]
BACK 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]

JTC CLASSIFICATION	SHEET	DATE	SUPERCEDES	50GCO 04-06 SINGLE PACKAGE HEAT PUMP	48TC003351	REV
U.S. ECCN:NSR	2 OF 3	08/15/19	-			-

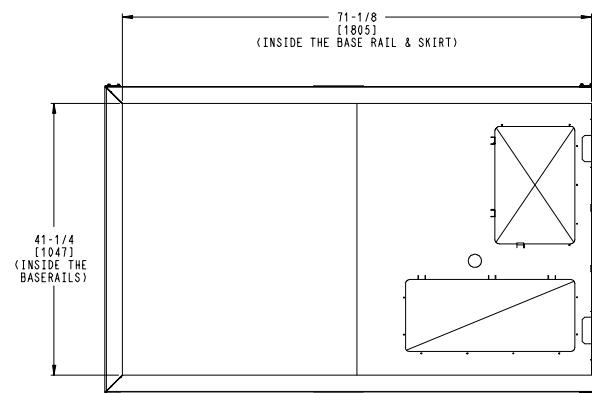
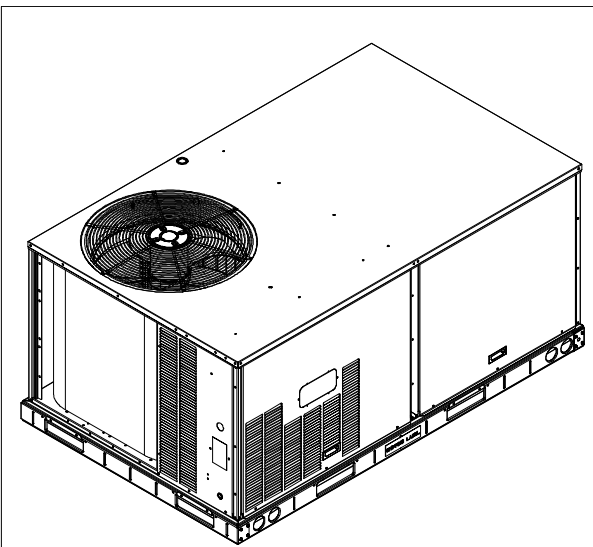
Certified Drawing for RTU - 10

Project: BCF - St Petersburg, FL #1357
 Prepared By:

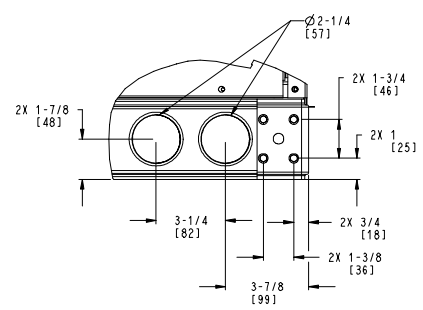
03/15/2022
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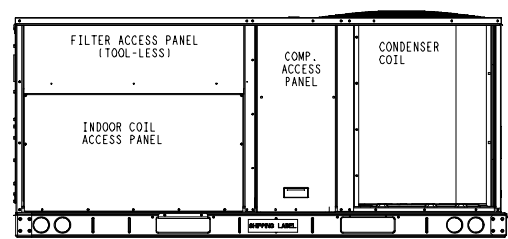
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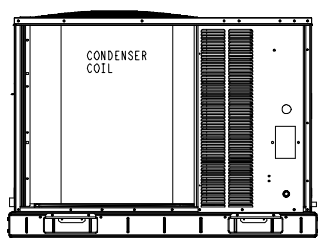
INSIDE BASERAIL DIMENSIONS
BOTTOM



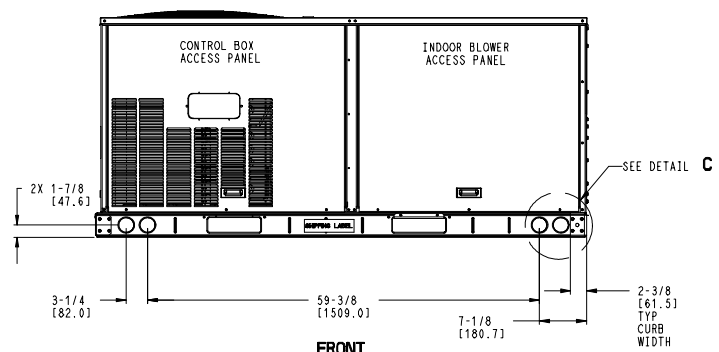
DETAIL **C**
 TYP 4 PLCS



BACK



LEFT



FRONT

JTC CLASSIFICATION	SHEET	DATE	SUPERCEDES	50GCO 04-06 SINGLE PACKAGE HEAT PUMP	48TC003351	REV
U.S. ECCN:NSR	3 OF 3	08/15/19	-			-

Performance Summary For RTU - 10

Project: BCF - St Petersburg, FL #1357
Prepared By:

03/15/2022
11:14AM

Part Number:50GCQM04J2C6-3W4F0

ARI SEER:..... 16.20

Base Unit Dimensions

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

Operating Weight

Base Unit Weight: 475 lb
Condensate Overflow Switch: 5 lb
SystemVu Controls: 2 lb
Enthalpy Ultra Low Leak Econo w/Baro Relief: 37 lb
Hinged Panels and Unpowered Convenience Outlet: 9 lb
Non-Fused Disconnect and Thru-The-Base Connections: 9 lb

Total Operating Weight: 537 lb

Unit

Unit Voltage-Phase-Hertz: 460-3-60
Air Discharge:..... Vertical
Fan Drive Type:..... Vane Axial
Actual Airflow: 1080 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: 58.0 F
Evaporator Leaving Air WB: 56.7 F
Evaporator Leaving Air Enthalpy: 24.19 BTU/lb
Gross Cooling Capacity: 35.20 MBH
Gross Sensible Capacity: 25.66 MBH
Compressor Power Input: 2.45 kW
Coil Bypass Factor: 0.064

Heating Performance

Outdoor Ambient Temperature:..... 47.0 F
Entering Air Indoor Coil DB: 56.4 F
Leaving Air Indoor Coil DB: 87.2 F
Total Heating Capacity: 35.94 MBH
Integrated Heating Capacity: 35.94 MBH
Heating Power Input:..... 2.10 kW
High Temperature COP: 3.8
Low Temperature COP: 2.4
HSPF: 8.3

Supply Fan

External Static Pressure:..... 0.80 in wg
Options / Accessories Static Pressure
Economizer:..... 0.03 in wg
Total Application Static (ESP + Unit Opts/Acc.): 0.83 in wg
Fan RPM: 1772
Fan Power:..... 0.41 BHP
NOTE: Selected IFM RPM Range: 1058 - 2190

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

Performance Summary For RTU - 10

Project: BCF - St Petersburg, FL #1357
 Prepared By:

03/15/2022
 11:14AM

Electrical Data

Voltage Range:	414 - 506
Compressor #1 RLA:.....	5.8
Compressor #1 LRA:.....	38
Indoor Fan Motor Type:.....	MED
Indoor Fan Motor FLA:.....	1.2
Power Supply MCA:.....	10
Power Supply MOCP (Fuse or HACR):.....	15
Disconnect Size FLA:.....	9
Disconnect Size LRA:	42
Electrical Convenience Outlet:	None
Outdoor Fan [Qty / FLA (ea)]:	1 / 0.8

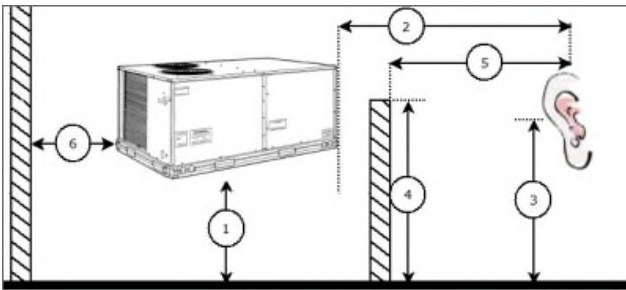
Control Panel SCCR: 5kA RMS at Rated Symmetrical Voltage

Acoustics

Sound Power Levels, db re 10E-12 Watts

	Discharge	Inlet	Outdoor
63 Hz	91.0	84.4	81.8
125 Hz	82.4	77.1	81.8
250 Hz	74.5	68.3	77.0
500 Hz	66.9	60.5	72.6
1000 Hz	64.2	62.0	69.9
2000 Hz	61.1	53.5	64.6
4000 Hz	57.4	47.6	59.3
8000 Hz	56.4	42.0	55.6
A-Weighted	72.8	67.3	75.4

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	81.8	81.8	77.0	72.6	69.9	64.6	59.3	55.6	85.9 Lw
B	55.6	65.7	68.4	69.4	69.9	65.8	60.3	54.5	75.4 LwA

Performance Summary For RTU - 10

Project: BCF - St Petersburg, FL #1357
 Prepared By:

03/15/2022
 11:14AM

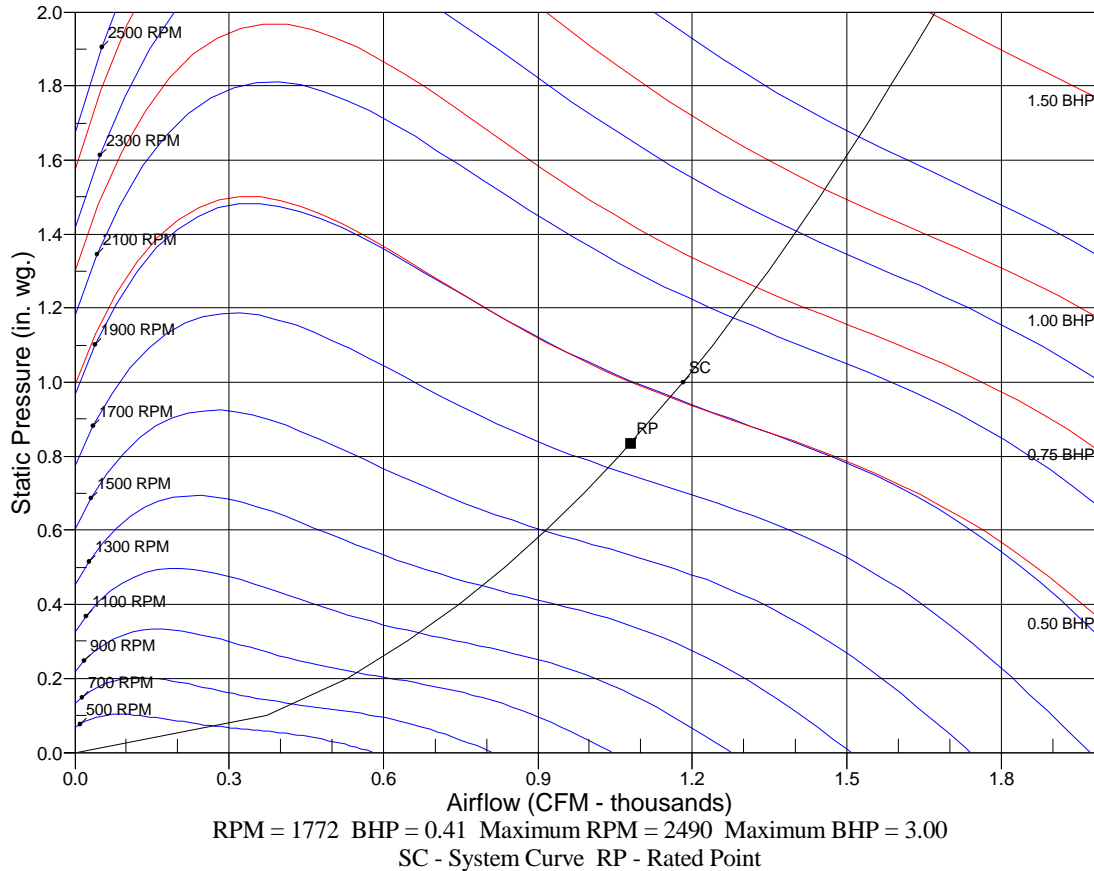
C	49.4	49.4	44.6	40.2	37.5	32.2	26.9	23.2	53.5 Lp
D	23.2	33.3	36.0	37.0	37.5	33.4	27.9	22.1	43.0 LpA

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



RTU - 11

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

Unit Report For RTU - 11

Project: BCF - St Petersburg, FL #1357
 Prepared By:

03/15/2022
 11:14AM

Unit Parameters

Unit Model:..... **50GCQM04J2C6-3W4F0**
 Unit Size:..... **04 (3 Tons)**
 Volts-Phase-Hertz: **460-3-60**
 Heating Type:..... **Heat Pump**
 Duct Cfg:..... **Vertical Supply / Vertical Return**
 Two Stage Cooling Models

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

Unit Length:..... **6' 2.375"**
 Unit Width:..... **3' 10.625"**
 Unit Height: **2' 9.375"**
 *** Total Operating Weight: **537 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

Condensate Overflow Switch
 Direct Drive - EcoBlue - Medium Static
 E-coat Al/Cu - Al/Cu
 SystemVu Controls
 Enthalpy Ultra Low Leak Econo w/Baro Relief
 Hinged Panels and Unpowered Convenience Outlet
 Non-Fused Disconnect and Thru-The-Base Connections
 Standard Packaging

Warranty Information

5-Year compressor parts (STD.)
 1-Year parts (STD.)
 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
50GCQM04J2C6-3W4F0	Rooftop Unit	1
	Base Unit	
	Condensate Overflow Switch	
	Direct Drive - EcoBlue - Medium Static	
	E-coat Al/Cu - Al/Cu	
	Hinged Panels and Unpowered Convenience Outlet	
	Non-Fused Disconnect and Thru-The-Base Connections	
	SystemVu controller, Ultra LOW LEAK EconoMi\$er2 enthalpy economizer with barometric relief. SystemV	
Field Installed Accessories		
33ZCT55SPT	Space Temp. with Override	1
33CSENSEN	Enthalpy Transmitter	1

Certified Drawing for RTU - 11

Project: BCF - St Petersburg, FL #1357
 Prepared By:

03/15/2022
 11:14AM

- 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
50GCO*04	33 3/8 [847]	18 5/8 [472]
50GCO*05	41 3/8 [1051]	18 5/8 [472]
50GCO*06	41 3/8 [1051]	18 5/8 [472]

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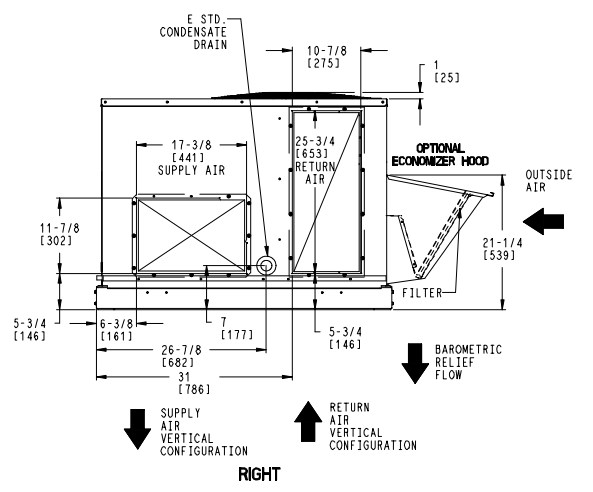
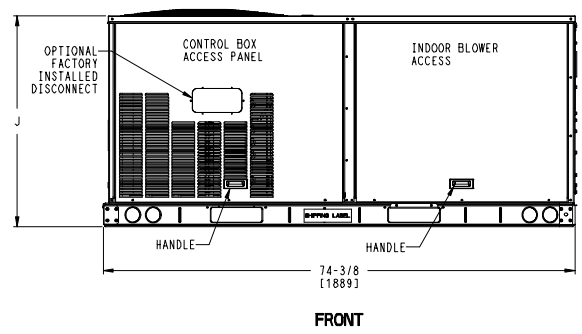
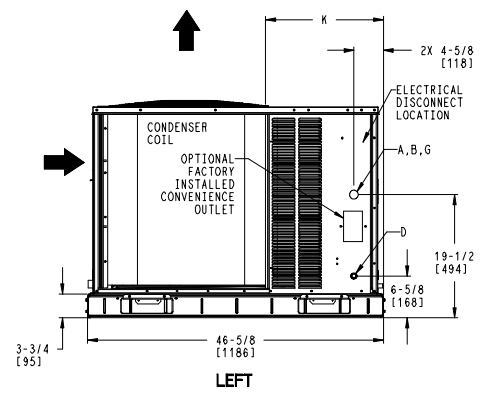
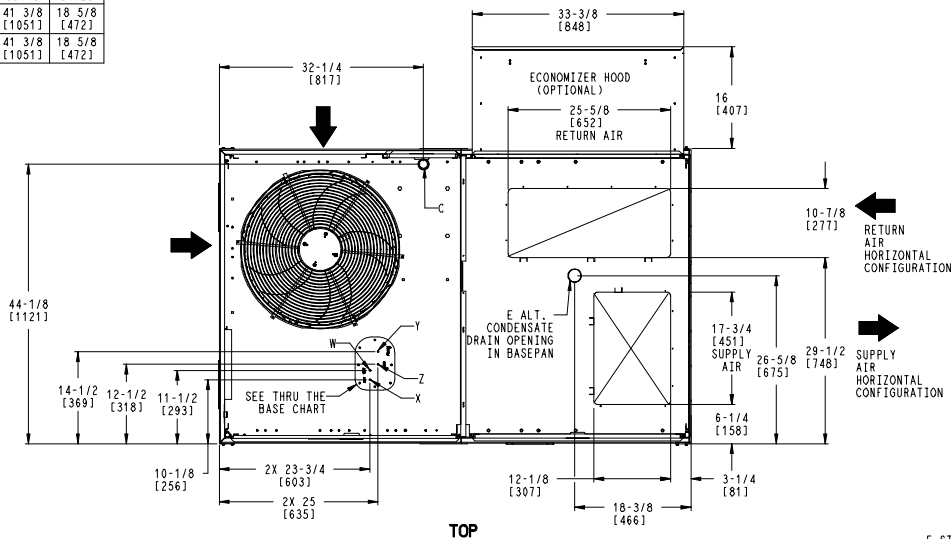
CONNECTION SIZES	
A	1 3/8" [35] DIA FIELD POWER SUPPLY HOLE
B	2" [51] DIA POWER SUPPLY KNOCKOUT
C	1 3/4" [44] DIA GAUGE ACCESS PLUG
D	7/8" [22] DIA FIELD CONTROL WIRING HOLE
E	3/4"-14 NPT CONDENSATE DRAIN
G	2 1/2" [64] DIA POWER SUPPLY KNOCK-OUT

THRU-THE-BASE CHART THESE HOLES REQUIRED FOR USE CRBTMPWRO08A00_009A00			
	THREADED CONDUIT SIZE	WIRE USE	REQ'D HOLE SIZE (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	50GCO 04-06 SINGLE PACKAGE HEAT PUMP	48TC003351	REV
U.S. ECCN:NSR	1 OF 3	08/15/19	-			-

Certified Drawing for RTU - 11

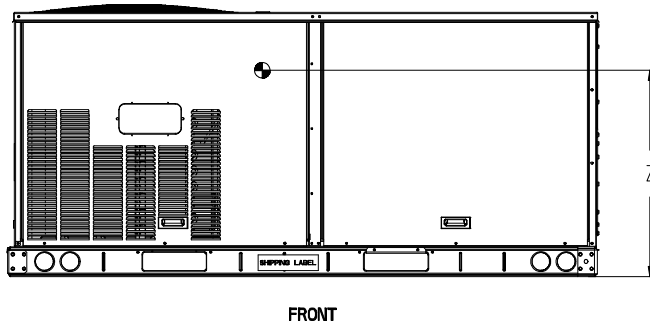
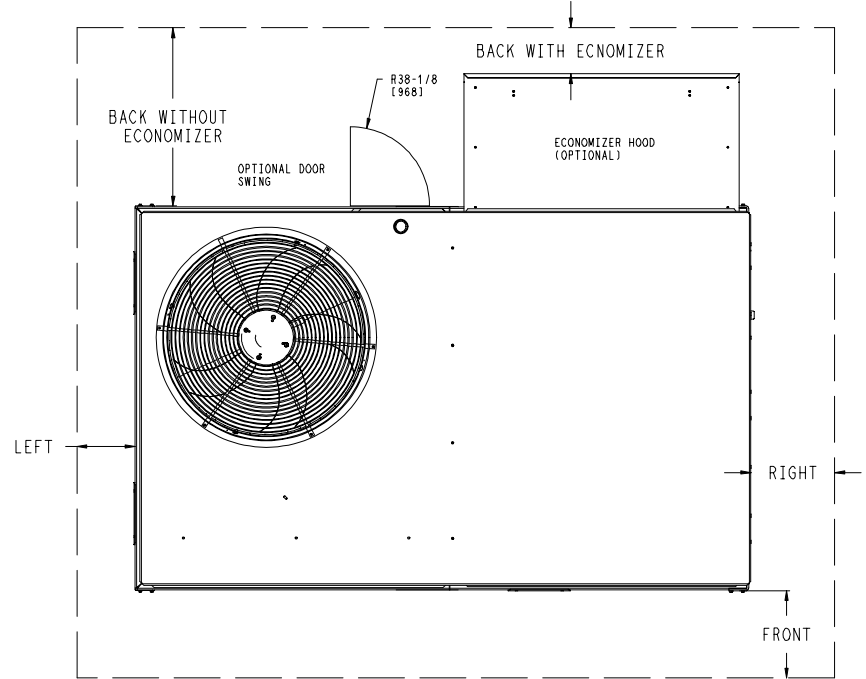
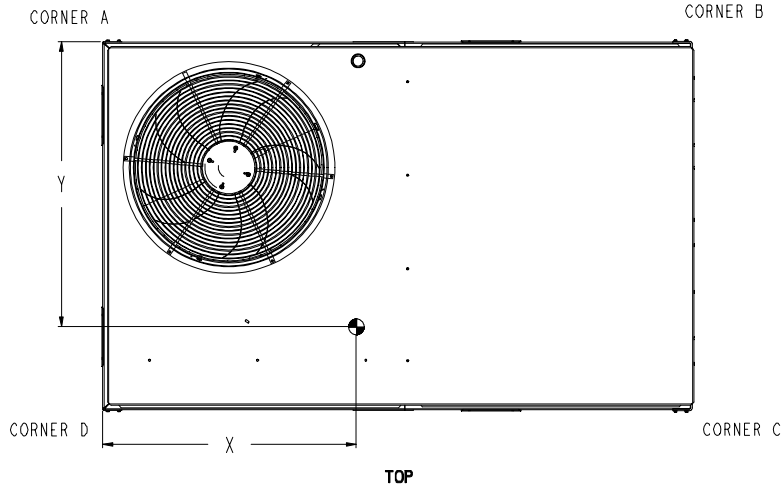
Project: BCF - St Petersburg, FL #1357
 Prepared By:

03/15/2022
 11:14AM

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			
50GCO*04	475	215	128	58	120	54	110	50	117	53	36 [914]	22 3/8 [568]	16 1/8 [410]			
50GCO*05	590	268	162	73	147	67	134	61	148	67	35 3/8 [898]	22 5/16 [557]	16 1/2 [419]			
50GCO*06	596	270	163	74	148	67	125	61	149	68	35 3/8 [898]	22 5/16 [557]	16 1/2 [419]			

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

SURFACE	CLEARANCE		OPERATING CLEARANCE
	SERVICE WITH CONDUCTIVE BARRIER	SERVICE WITH NONCONDUCTIVE BARRIER	
FRONT	48 [1219mm]	36 [914mm]	18 [457mm]
LEFT	48 [1219mm]	42 [1067mm]	18 [457mm]
BACK 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]

JTC CLASSIFICATION	SHEET	DATE	SUPERCEDES	50GCO 04-06 SINGLE PACKAGE HEAT PUMP	48TC003351	REV
U.S. ECCN:NSR	2 OF 3	08/15/19	-			-

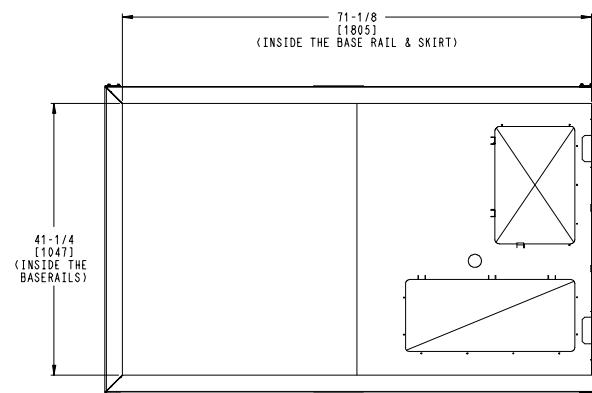
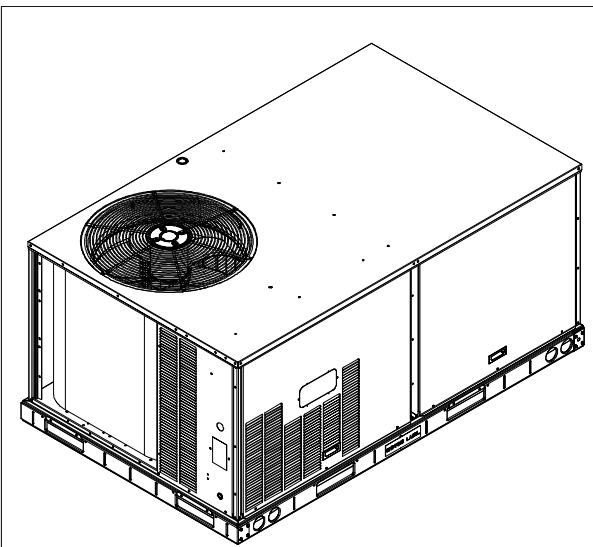
Certified Drawing for RTU - 11

Project: BCF - St Petersburg, FL #1357
 Prepared By:

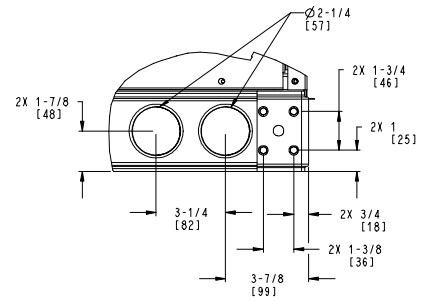
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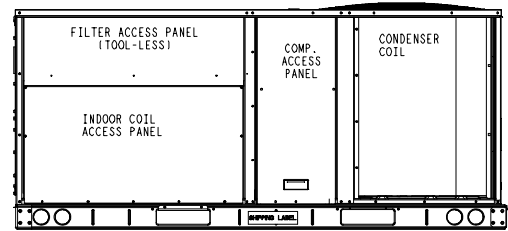
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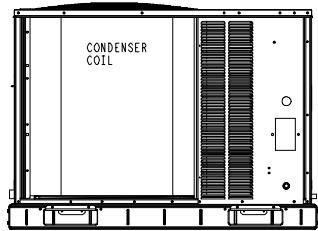
INSIDE BASERAIL DIMENSIONS
BOTTOM



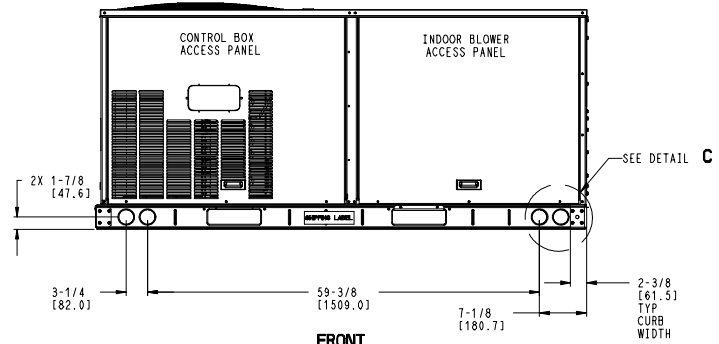
DETAIL **C**
 TYP 4 PLCS



BACK



LEFT



FRONT

JTC CLASSIFICATION	SHEET	DATE	SUPERCEDES	50GCO 04-06 SINGLE PACKAGE HEAT PUMP	48TC003351	REV
U.S. ECCN: NSR	3 OF 3	08/15/19	-			-

Performance Summary For RTU - 11

Project: BCF - St Petersburg, FL #1357
Prepared By:

03/15/2022
11:14AM

Part Number:50GCQM04J2C6-3W4F0

ARI SEER:..... 16.20

Base Unit Dimensions

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

Operating Weight

Base Unit Weight: 475 lb
Condensate Overflow Switch: 5 lb
SystemVu Controls: 2 lb
Enthalpy Ultra Low Leak Econo w/Baro Relief: 37 lb
Hinged Panels and Unpowered Convenience Outlet: 9 lb
Non-Fused Disconnect and Thru-The-Base Connections: 9 lb

Total Operating Weight: 537 lb

Unit

Unit Voltage-Phase-Hertz: 460-3-60
Air Discharge:..... Vertical
Fan Drive Type:..... Vane Axial
Actual Airflow: 1200 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: 58.9 F
Evaporator Leaving Air WB: 57.6 F
Evaporator Leaving Air Enthalpy: 24.79 BTU/lb
Gross Cooling Capacity: 35.89 MBH
Gross Sensible Capacity: 27.31 MBH
Compressor Power Input: 2.46 kW
Coil Bypass Factor: 0.070

Heating Performance

Outdoor Ambient Temperature:..... 47.0 F
Entering Air Indoor Coil DB: 56.4 F
Leaving Air Indoor Coil DB: 84.5 F
Total Heating Capacity: 36.48 MBH
Integrated Heating Capacity: 36.48 MBH
Heating Power Input:..... 2.01 kW
High Temperature COP: 3.8
Low Temperature COP: 2.4
HSPF: 8.3

Supply Fan

External Static Pressure:..... 0.80 in wg
Options / Accessories Static Pressure
Economizer:..... 0.04 in wg
Total Application Static (ESP + Unit Opts/Acc.): 0.84 in wg
Fan RPM: 1825
Fan Power:..... 0.44 BHP
NOTE: Selected IFM RPM Range: 1058 - 2190

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

Performance Summary For RTU - 11

Project: BCF - St Petersburg, FL #1357
 Prepared By:

03/15/2022
 11:14AM

Electrical Data

Voltage Range:	414 - 506
Compressor #1 RLA:.....	5.8
Compressor #1 LRA:.....	38
Indoor Fan Motor Type:.....	MED
Indoor Fan Motor FLA:.....	1.2
Power Supply MCA:.....	10
Power Supply MOCP (Fuse or HACR):.....	15
Disconnect Size FLA:.....	9
Disconnect Size LRA:	42
Electrical Convenience Outlet:	None
Outdoor Fan [Qty / FLA (ea)]:	1 / 0.8

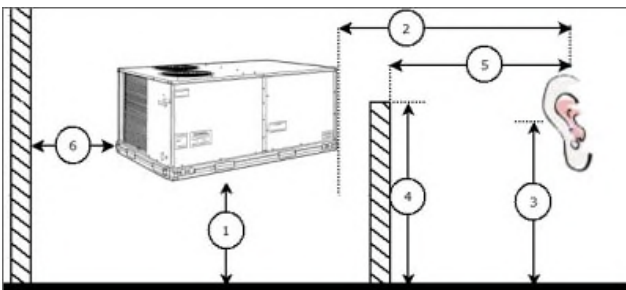
Control Panel SCCR: 5kA RMS at Rated Symmetrical Voltage

Acoustics

Sound Power Levels, db re 10E-12 Watts

	Discharge	Inlet	Outdoor
63 Hz	90.6	84.6	81.8
125 Hz	82.2	77.2	81.8
250 Hz	75.2	68.3	77.0
500 Hz	67.3	60.8	72.6
1000 Hz	64.6	62.4	69.9
2000 Hz	61.6	54.0	64.6
4000 Hz	57.6	48.0	59.3
8000 Hz	56.3	42.2	55.6
A-Weighted	73.0	67.5	75.4

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	81.8	81.8	77.0	72.6	69.9	64.6	59.3	55.6	85.9 Lw
B	55.6	65.7	68.4	69.4	69.9	65.8	60.3	54.5	75.4 LwA

Performance Summary For RTU - 11

Project: BCF - St Petersburg, FL #1357
 Prepared By:

03/15/2022
 11:14AM

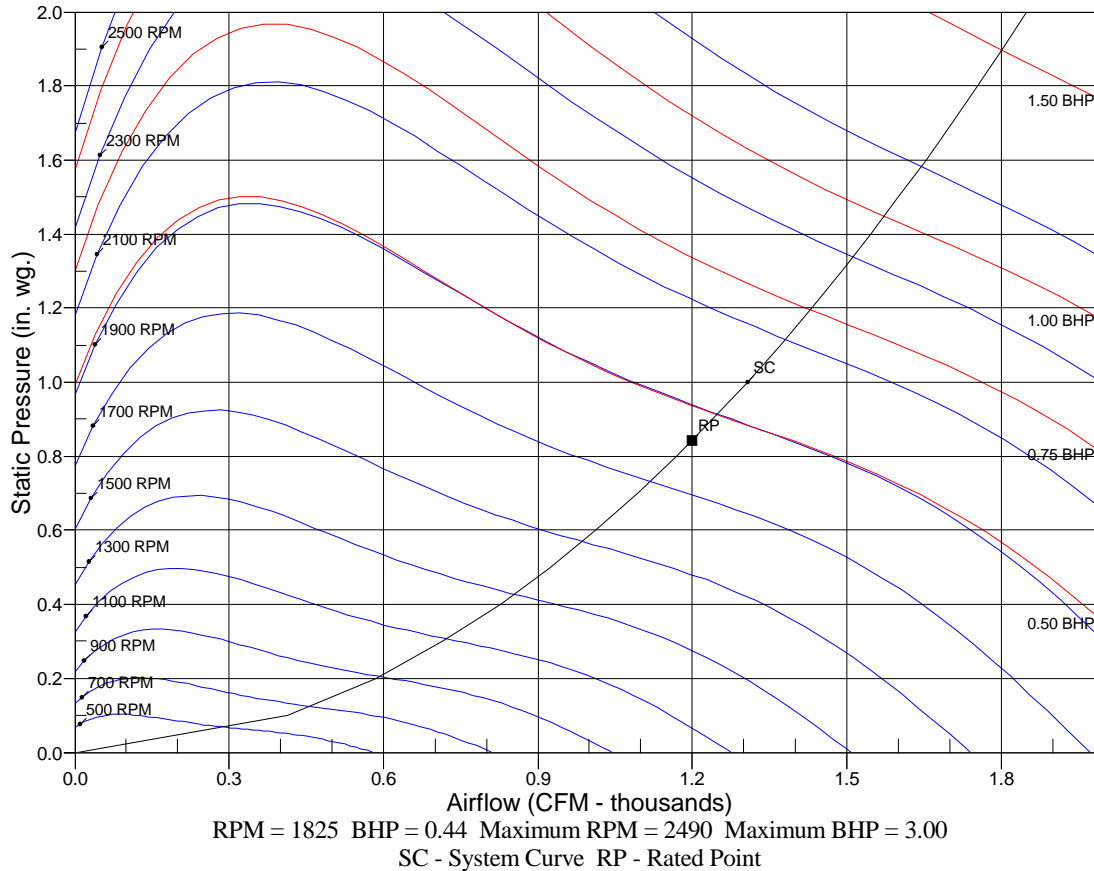
C	49.4	49.4	44.6	40.2	37.5	32.2	26.9	23.2	53.5 Lp
D	23.2	33.3	36.0	37.0	37.5	33.4	27.9	22.1	43.0 LpA

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



RTU - 13

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

Unit Report For RTU - 13

Project: BCF - St Petersburg, FL #1357
 Prepared By:

RTU-2 (10 TON)

03/15/2022
 11:14AM

Unit Parameters

Unit Model:..... **50LCEA12J2C6-4R4F0**
 Unit Size:..... **12 (10.0 tons)**
 Volts-Phase-Hertz: **460-3-60**
 Heating Type:..... **Electric**
 Duct Cfg:..... **Vertical Supply / Vertical Return**
 Medium Electric Heat
 Three stage cooling capacity control with TXV and Humidi-MiZer

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

Unit Length:..... **9' 7.875"**
 Unit Width:..... **5' 3.375"**
 Unit Height: **4' 10.75"**
 *** Total Operating Weight: **1960 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

Medium Electric Heat
 Condensate Overflow Switch
Medium Static Belt Drive with VFD Controller
 E-coat Al/Cu - Al/Cu
 SystemVu Unit Controller and system building automation
 Ultra LOW LEAK Enthalpy EconoMiSer w/ Barometric Relief
 Hinged Panels, Unpowered Convenience Outlet
 Non-Fused Disconnect and Thru-The-Base Connections
 Standard Packaging
 Humidi-MiZer™ Adaptive Dehumidification System

Warranty Information

5-Year compressor parts (STD.)
 1-Year parts (STD.)
 Start-up, First Unit
 Start-up, Each Additional Unit

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

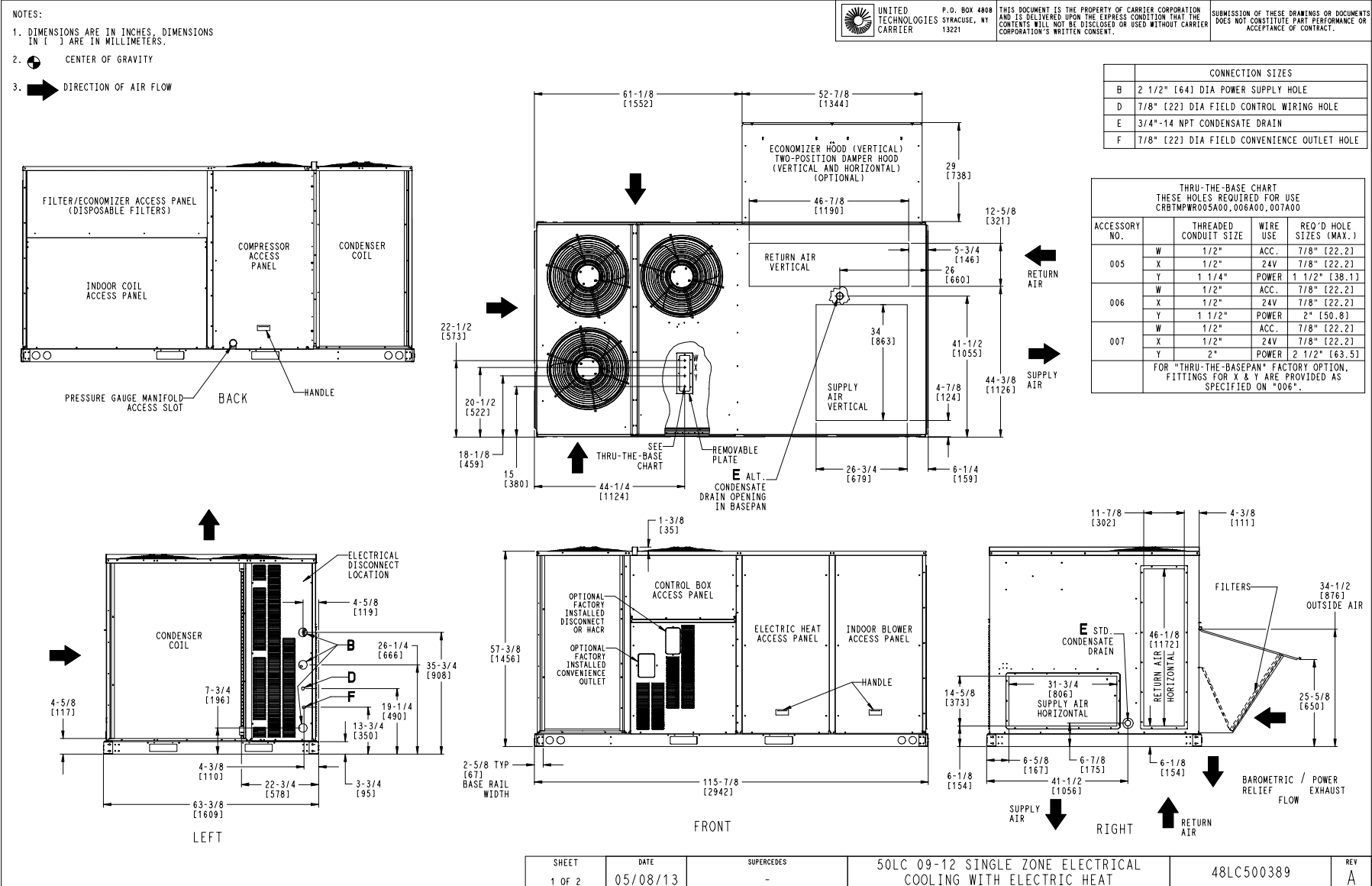
Ordering Information

Part Number	Description	Quantity
50LCEA12J2C6-4R4F0	Rooftop Unit	5
	Base Unit	
	Medium Electric Heat	
	Condensate Overflow Switch	
	Medium Static Belt Drive with VFD Controller	
	E-coat Al/Cu - Al/Cu	
	Hinged Panels, Unpowered Convenience Outlet	
	Non-Fused Disconnect and Thru-The-Base Connections	
	Humidi-MiZer™ Adaptive Dehumidification System	
	SystemVu controller, Ultra LOW LEAK EconoMiSer2 enthalpy economizer with barometric relief. SystemV	
Field Installed Accessories		
33CENTSEN	Enthalpy Transmitter	5
33ZCT55SPT	Space Temp. with Override	5
CRPWREXH081A00	Power Exhaust System	5
CRPECONV007B00	Hinged Access Door	5

Certified Drawing for RTU - 13

Project: BCF - St Petersburg, FL #1357
 Prepared By:

03/15/2022
 11:14AM



SHEET	DATE	SUPERCEDES	50LC 09-12 SINGLE ZONE ELECTRICAL COOLING WITH ELECTRIC HEAT	48LC500389	REV
1 OF 2	05/08/13	-			A

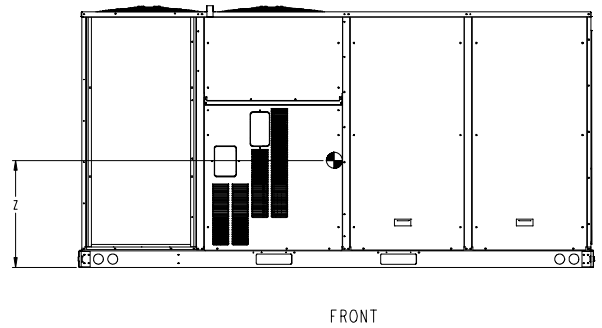
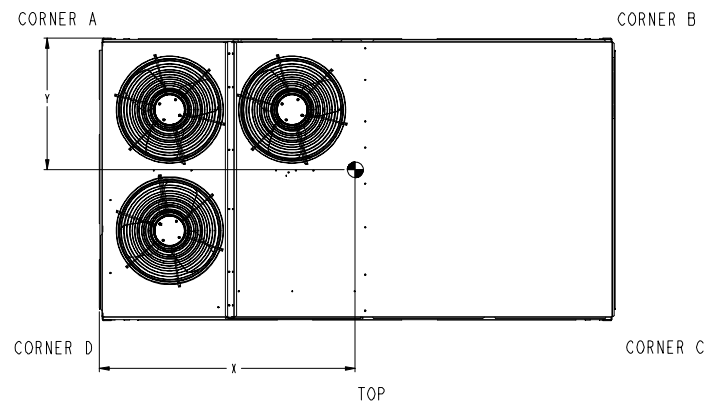
Certified Drawing for RTU - 13

Project: BCF - St Petersburg, FL #1357
 Prepared By:

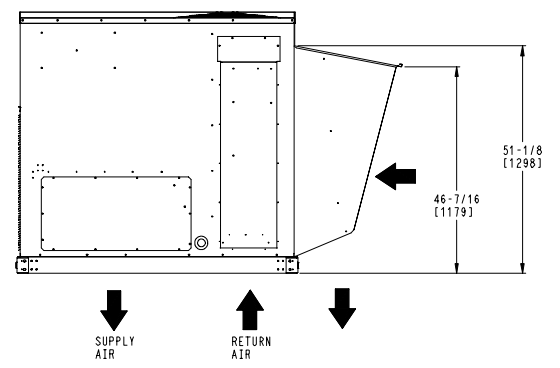
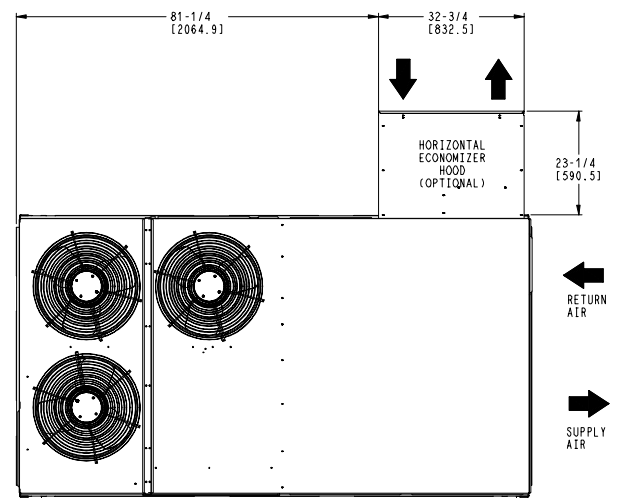
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UNIT	STD UNIT WEIGHT		CORNER WEIGHT (A)		CORNER WEIGHT (B)		CORNER WEIGHT (C)		CORNER WEIGHT (D)		C.G.		
	LBS.	KG.	LBS.	KG.	LBS.	KG.	LBS.	KG.	LBS.	KG.	X	Y	Z
50LC 09	1536	697	388	174	392	178	380	172	374	171	58 (1473)	32 (812)	20 5/8 (524)
50LC 12	1536	697	388	174	392	178	380	172	374	171	58 (1473)	32 (812)	20 5/8 (524)

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



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HORIZONTAL ECONOMIZER

SHEET 2 OF 2	DATE 05/08/13	SUPERCEDES -	50LC 09-12 SINGLE ZONE ELECTRICAL COOLING WITH ELECTRIC HEAT	48LC500389	REV A
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Certified Drawing for RTU - 13

Project: BCF - St Petersburg, FL #1357
 Prepared By:

03/15/2022
 11:14AM

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 - 13

Project: BCF - St Petersburg, FL #1357
 Prepared By:

03/15/2022
 11:14AM

Part Number:50LCEA12J2C6-4R4F0

ARI EER: **13.10**
 IEER (Max Cooling at Normal Cooling Design Mode): **20.5**

Base Unit Dimensions

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

Operating Weight

Base Unit Weight: **1536** lb
 Medium Electric Heat: **62** lb
 Three stage cooling capacity control with TXV and Humidi-MiZer: **90** lb
 Medium Static Belt Drive with VFD Controller: **45** lb
 SystemVu Unit Controller and system building automation: **10** lb
 Ultra LOW LEAK Enthalpy EconoMi\$er w/ Barometric Relief: **103** lb
 Hinged Panels, Unpowered Convenience Outlet: **10** lb
 Non-Fused Disconnect and Thru-The-Base Connections: **19** lb

Accessories

Power Exhaust System: **85** lb

Total Operating Weight: **1960** lb

Unit

Unit Voltage-Phase-Hertz: **460-3-60**
 Air Discharge: **Vertical**
 Fan Drive Type: **Belt**
 Actual Airflow: **3600** 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: **57.3** F
 Evaporator Leaving Air WB: **56.5** F
 Evaporator Leaving Air Enthalpy: **24.05** BTU/lb
 Gross Cooling Capacity: **119.62** MBH
 Gross Sensible Capacity: **88.37** MBH
 Compressor Power Input: **7.48** kW
 Coil Bypass Factor: **0.020**

Heating Performance

Heating Airflow: **3600** CFM
 Entering Air Temp: **65.9** F
 Leaving Air Temp: **92.9** F
 Electric Heating Capacity: **30.80** kW

Supply Fan

External Static Pressure: **0.60** in wg
 Options / Accessories Static Pressure
 Electric Heaters: **0.02** in wg
 Humidi-MiZer Dehumidification System: **0.05** in wg
 Economizer: **0.02** in wg
 Total Application Static (ESP + Unit Opts/Acc.): **0.68** in wg
 Fan RPM: **591**
 Fan Power: **1.21** BHP
 NOTE: **Selected IFM RPM Range: 547 - 757**

Performance Summary For RTU - 13

Project: BCF - St Petersburg, FL #1357
 Prepared By:

03/15/2022
 11:14AM

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: **6.1**
 Compressor #1 LRA: **41**
 Compressor #2 RLA: **8.2**
 Compressor #2 LRA: **66**
 Actual Electric Heater kW: **30.8**
 Electric Heater FLA: **40.3**
 Indoor Fan Motor Type: **MED**
 Indoor Fan Motor FLA: **3.8**
 Power Supply MCA: **58**
 Power Supply MOCP (Fuse or HACR): **60**
 Disconnect Size FLA: **53**
 Disconnect Size LRA: **142**
 Electrical Convenience Outlet: **None**
 Power Exhaust [Kit Qty / FLA (ea kit)]: **1 / 1.8**
 Outdoor Fan [Qty / FLA (ea)]: **3 / 1.8**

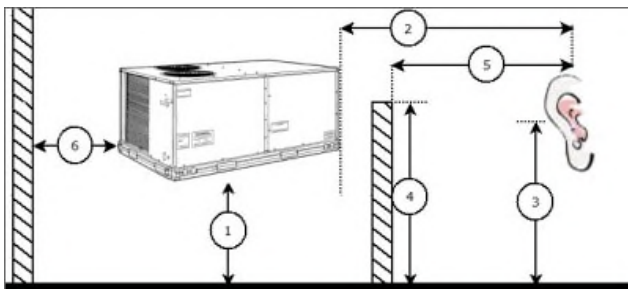
Control Panel SCCR: 5kA RMS at Rated Symmetrical Voltage

Acoustics

Sound Power Levels, db re 10E-12 Watts

	Discharge	Inlet	Outdoor
63 Hz	89.4	85.7	89.3
125 Hz	84.4	77.4	86.0
250 Hz	68.5	64.1	82.9
500 Hz	68.7	63.9	80.7
1000 Hz	66.1	61.9	78.5
2000 Hz	63.6	56.4	73.6
4000 Hz	64.4	53.5	69.6
8000 Hz	58.6	47.6	64.5
A-Weighted	73.9	68.0	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 - 13

Project: BCF - St Petersburg, FL #1357
 Prepared By:

03/15/2022
 11:14AM

- 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 - 13

Project: BCF - St Petersburg, FL #1357
 Prepared By:

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 11:14AM

