Unit Report For 5 Ton RTU 208-3

Project: ~Untitled1 09/19/2020
Prepared By: 12:13PM

Unit Parameters

Unit Model: **48FCEA06A3A5-0A0A0**
Unit Size: **06 (5 Tons)**
Volts-Phase-Hertz: **208-3-60**
Heating Type: **Gas**
Duct Cfg: **Vertical Supply / Vertical Return**
Medium Heat
Standard One Stage Cooling Models

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

Unit Length: **6' 2.375"**
Unit Width: **3' 10.625"**
Unit Height: **2' 9.375"**
*** Total Operating Weight: **694** 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**

Unit Configuration

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

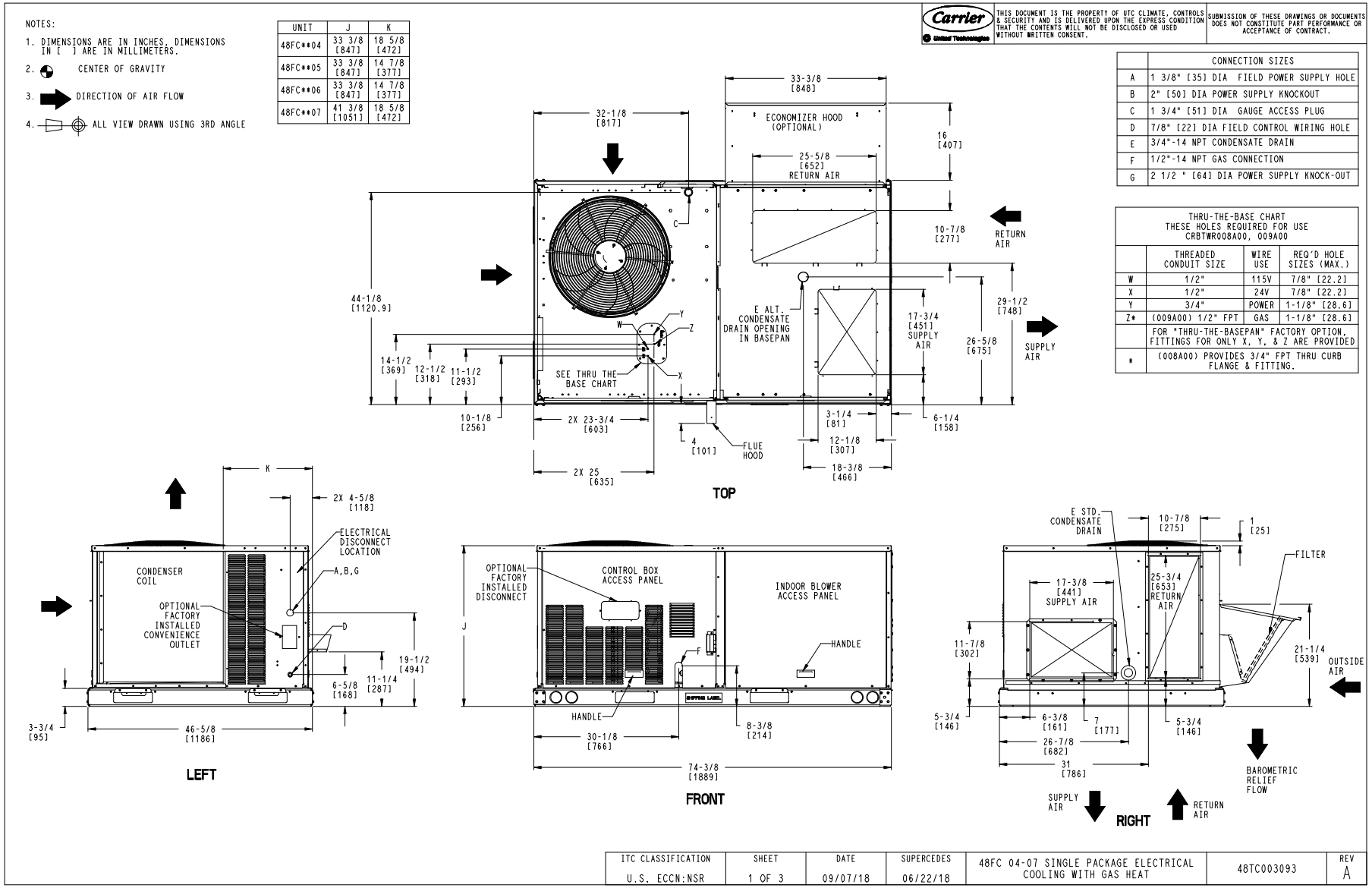
Warranty Information

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

No optional warranties were selected.

Ordering Information

Part Number	Description	Quantity
48FCEA06A3A5-0A0A0	Rooftop Unit	1
Accessories		
CRRFCURB001A01	14-inch Tall Roof Curb	1


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
48FC**04 | 33 3/8 [847] | 18 5/8 [472]
48FC**05 | 33 3/8 [847] | 14 7/8 [377]
48FC**06 | 33 3/8 [847] | 14 7/8 [377]
48FC**07 | 41 3/8 [1051] | 18 5/8 [472]
Carrier
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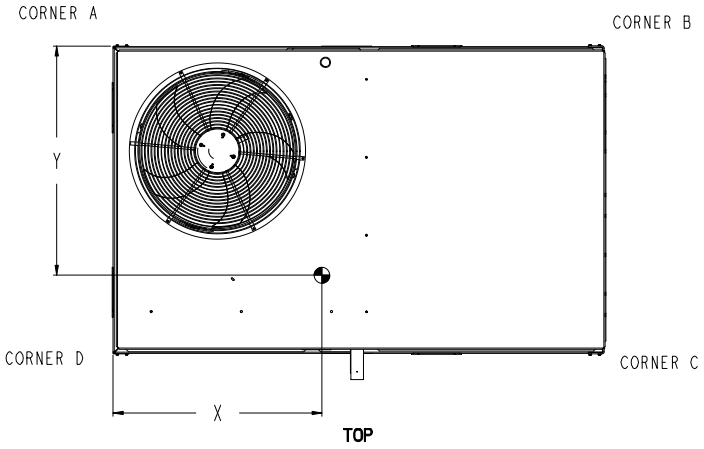
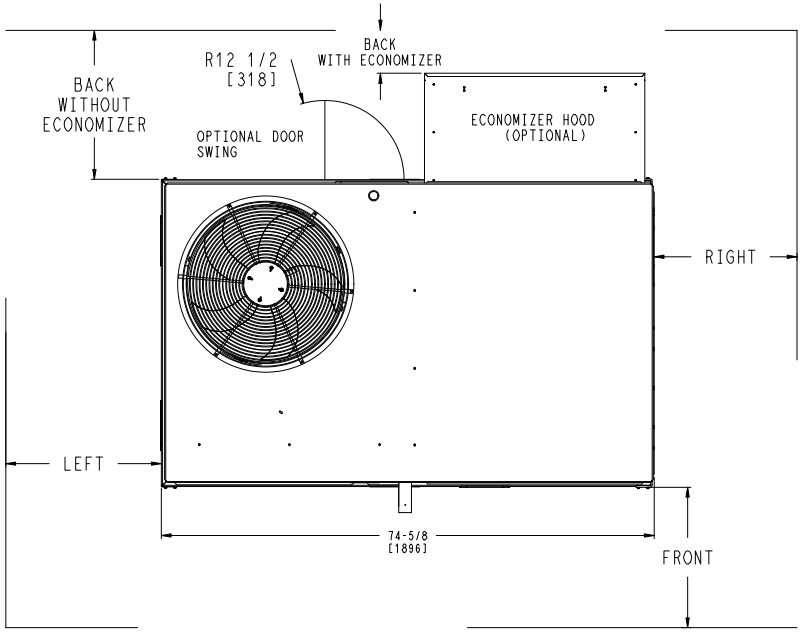
CONNECTION SIZES
A | 1 3/8" [35] DIA FIELD POWER SUPPLY HOLE
B | 2" [50] DIA POWER SUPPLY KNOCKOUT
C | 1 3/4" [51] DIA GAUGE ACCESS PLUG
D | 7/8" [22] DIA FIELD CONTROL WIRING HOLE
E | 3/4"-14 NPT CONDENSATE DRAIN
F | 1/2"-14 NPT GAS CONNECTION
G | 2 1/2 " [64] DIA POWER SUPPLY KNOCK-OUT
THRU-THE-BASE CHART
THESE HOLES REQUIRED FOR USE CRBTWR008A00, 009A00
THREADED CONDUIT SIZE | WIRE USE | REQ'D HOLE SIZES (MAX.)
W | 1/2" | 115V | 7/8" [22.2]
X | 1/2" | 24V | 7/8" [22.2]
Y | 3/4" | POWER | 1-1/8" [28.6]
Z* | (009A00) 1/2" FPT | GAS | 1-1/8" [28.6]
FOR "THRU-THE-BASEPAN" FACTORY OPTION, FITTINGS FOR ONLY X, Y, & Z ARE PROVIDED
* (008A00) PROVIDES 3/4" FPT THRU CURB FLANGE & FITTING.
33-3/8 [848]
32-1/8 [817]
ECONOMIZER HOOD (OPTIONAL)
25-5/8 [652] RETURN AIR
16 [407]
10-7/8 [277]
RETURN AIR
44-1/8 [1120.9]
14-1/2 [369]
12-1/2 [318]
11-1/2 [293]
10-1/8 [256]
SEE THRU THE BASE CHART
E ALT. CONDENSATE DRAIN OPENING IN BASEPAN
17-3/4 [451] SUPPLY AIR
26-5/8 [675]
29-1/2 [748]
SUPPLY AIR
2X 23-3/4 [603]
2X 25 [635]
4 [101]
FLUE HOOD
3-1/4 [81]
12-1/8 [307]
18-3/8 [466]
6-1/4 [158]
TOP
K
2X 4-5/8 [118]
ELECTRICAL DISCONNECT LOCATION
A,B,G
CONDENSER COIL
OPTIONAL FACTORY INSTALLED CONVENIENCE OUTLET
D
19-1/2 [494]
11-1/4 [287]
6-5/8 [168]
3-3/4 [95]
46-5/8 [1186]
LEFT
OPTIONAL FACTORY INSTALLED DISCONNECT
CONTROL BOX ACCESS PANEL
INDOOR BLOWER ACCESS PANEL
J
HANDLE
F
HANDLE
30-1/8 [766]
8-3/8 [214]
74-3/8 [1889]
FRONT
E STD. CONDENSATE DRAIN
10-7/8 [275]
1 [25]
FILTER
17-3/8 [441] SUPPLY AIR
25-3/4 [653] RETURN AIR
11-7/8 [302]
21-1/4 [539]
OUTSIDE AIR
5-3/4 [146]
6-3/8 [161]
7 [177]
5-3/4 [146]
26-7/8 [682]
31 [786]
BAROMETRIC RELIEF FLOW
SUPPLY AIR
RETURN AIR
RIGHT
ITC CLASSIFICATION: U.S. ECCN:NSR
SHEET: 1 OF 3
DATE: 09/07/18
SUPERCEDES: 06/22/18
48FC 04-07 SINGLE PACKAGE ELECTRICAL COOLING WITH GAS HEAT
48TC003093
REV: A

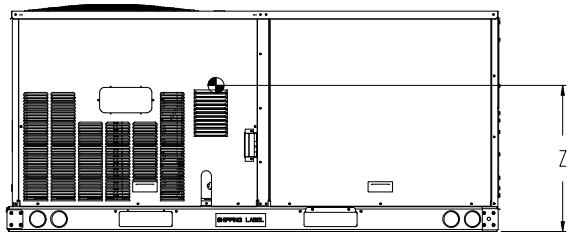
UNIT	STD. UNIT WEIGHT *		CORNER WEIGHT (A)		CORNER WEIGHT (B)		CORNER WEIGHT (C)		CORNER WEIGHT (D)		C.G.		HEIGHT
	LBS.	KG.	LBS.	KG.	LBS.	KG.	LBS.	KG.	LBS.	KG.	X	Y	Z
48FC**04	482	219	113	51	116	53	128	58	125	57	37 5/8 [956]	24 9/16 [624]	18 1/4 [464]
48FC**05	543	246	138	63	133	60	133	60	138	63	36 1/2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

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



TOP





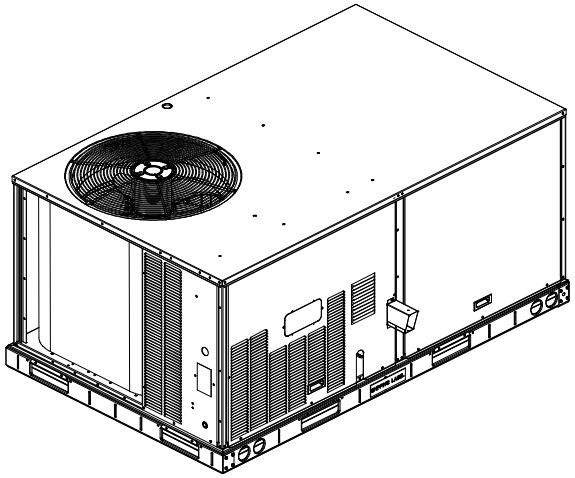
FRONT

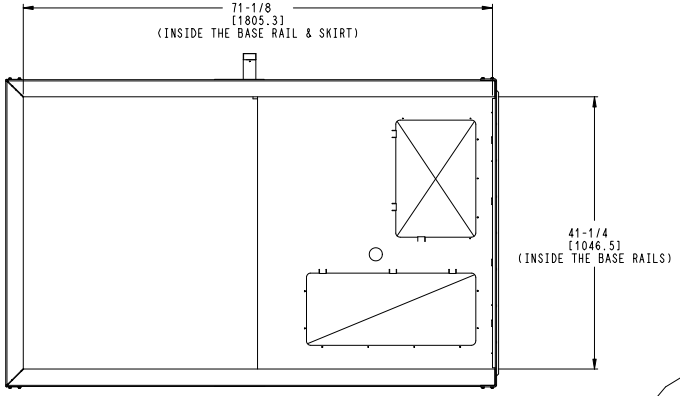
NOTES:

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

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

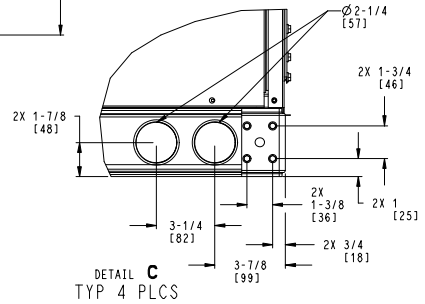
ITC CLASSIFICATION	SHEET	DATE	SUPERCEDES			REV
U.S. ECCN:NSR	2 OF 3	09/07/18	06/22/18	48FC 04-07 SINGLE PACKAGE ELECTRICAL COOLING WITH GAS HEAT	48TC003093	A



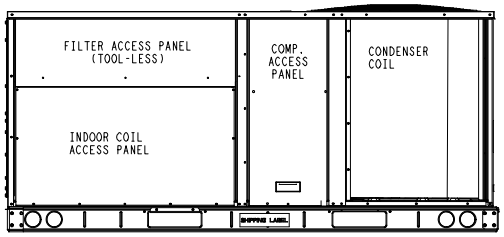


INSIDE BASERAIL DIMENSIONS

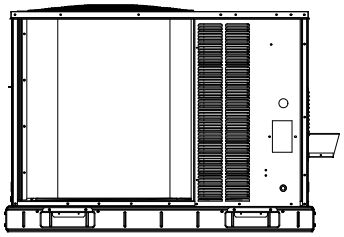
BOTTOM



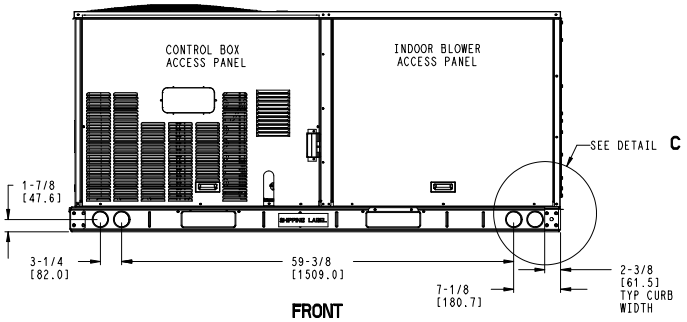
DETAIL **C**
TYP 4 PLCS



BACK



LEFT



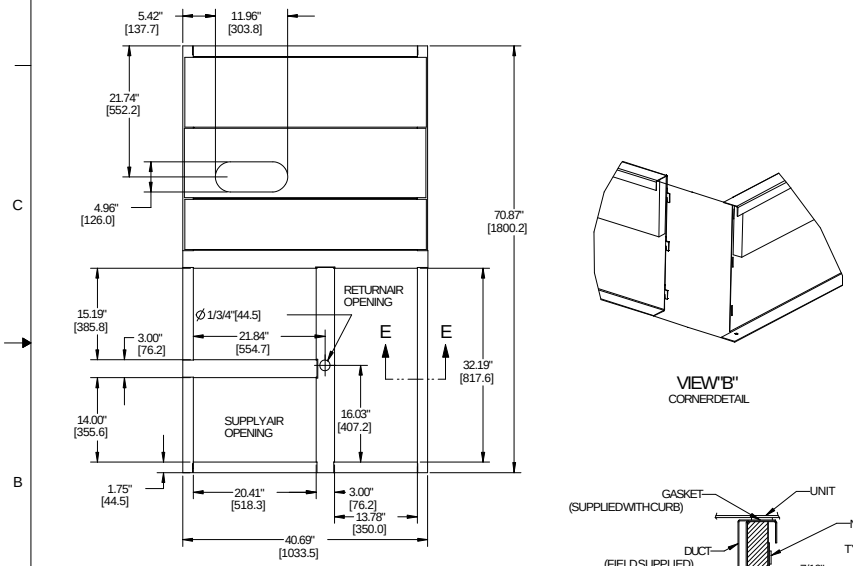
FRONT

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

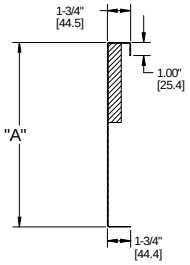
ROOFCURB ACCESSORY#	A
CRRFCURB001A01	14" [356]
CRRFCURB002A01	24" [610]

NOTES:
1. ROOFCURB ACCESSORY IS SHIPPED DISASSEMBLED.
2. INSULATED PANELS: 25.4[1"] THK. POLYURETHANE FOAM, 44.5[1-3/4"] DENSITY.
3. DIMENSIONS IN [ ] ARE IN MILLIMETERS.
4. ROOFCURB: 18GA GALVANIZED STEEL.
5. ATTACH DUCTWORK TO CURB. (FLANGES OF DUCT RESTON CURB).
6. SERVICE CLEARANCE 4 FEET ON EACH SIDE.
7. [illegible] SECTION OF AIR FLOW.
8. CONNECTOR PACKAGE CRBTMPWR001A01 IS FOR THRU-THE-CURB GAS TYPE. PACKAGE CRBTMPWR003A01 IS FOR THRU-THE-BOTTOM TYPE GAS CONNECTIONS.

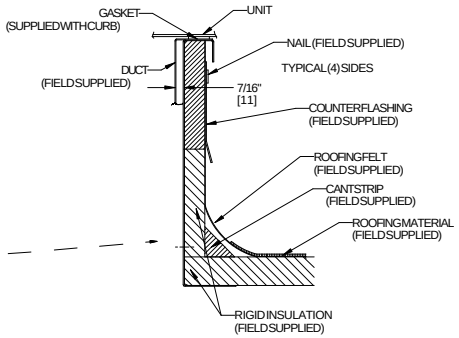
CONNECTOR PKG ACC.	GAS CONNECTION TYPE	GAS FITTING	POWER WIRING FITTING	CONTROL WIRING FITTING	ACCESSORY CONVENIENCE OUTLET WIRING CONNECTOR
CRBTMPWR001A01	THRU THE CURB	3/4"[19] NPT	3/4"[19] NPT	1/2"[12.7] NPT	1/2"[12.7] NPT
CRBTMPWR003A01	THRU THE BOTTOM	1/2"[12.7] NPT			

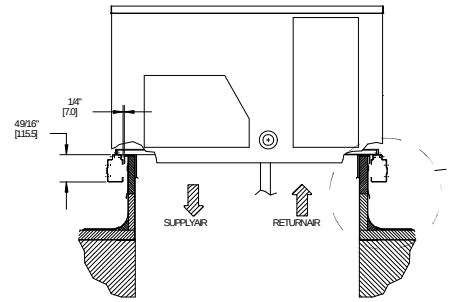


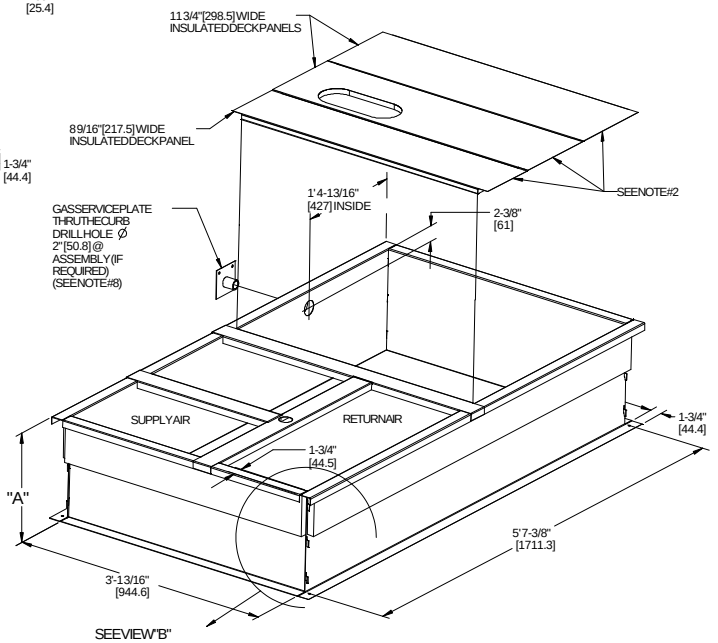
VIEW "B"
CORNER DETAIL



SECTION EE
SCALE 0.250







SEE VIEW "B"

CERTIFIED DRAWING

REV	REVISION RECORD	DATE	BY	CHK'D	APP'D	ECN NO.
A	OVERALL DIM. 5'-7 3/8" WAS 5'-7 7/8; 18GA MATERIAL WA 16 GA.; NAIL FIELD SUPPLIED WAS WITH CURB	04/22/13	MMC	-	-	1067898

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MATERIAL - - -	AUTHORIZATION NUMBER 1041738	TITLE CURB ASY, ROOF (004-007)	
ENGINEERING REQUIREMENTS T-005, Y-002	ENGINEERING - - MANUFACTURING - -	SIZE D	DRAWING NUMBER 48TC400427
WEIGHT: -	DRAFTER MMC 06/17/11 CHECKER - -	SHEET 5 OF 5	REV B
SURFACE FINISH - MFG/PURCH PURCH	MODEL (INTERNAL USE ONLY)	NEXT DRAWING - SCALE N/A	DISTRIBUTION MMC

UNCONTROLLED WHEN PRINTED

Part Number:48FCEA06A3A5-0A0A0

ARI SEER:	**14.00**	
Base Unit Dimensions		
Unit Length:	**74.4**	in
Unit Width:	**46.6**	in
Unit Height:	**33.4**	in
Operating Weight		
Base Unit Weight:	**511**	lb
Medium Heat:	**63**	lb
Direct Drive - EcoBlue - High Static:	**5**	lb
Accessories		
14-inch Tall Roof Curb:	**115**	lb
Total Operating Weight:	**694**	lb
Unit		
Unit Voltage-Phase-Hertz:	**208-3-60**	
Air Discharge:	**Vertical**	
Fan Drive Type:	**Direct**	
Actual Airflow:	**2000**	CFM
Site Altitude:	**0**	ft
Cooling Performance		
Condenser Entering Air DB:	**95.0**	F
Evaporator Entering Air DB:	**80.0**	F
Evaporator Entering Air WB:	**67.0**	F
Entering Air Enthalpy:	**31.44**	BTU/lb
Evaporator Leaving Air DB:	**59.3**	F
Evaporator Leaving Air WB:	**57.7**	F
Evaporator Leaving Air Enthalpy:	**24.85**	BTU/lb
Gross Cooling Capacity:	**59.31**	MBH
Gross Sensible Capacity:	**44.73**	MBH
Compressor Power Input:	**4.14**	kW
Coil Bypass Factor:	**0.163**	
Heating Performance		
Heating Airflow:	**2000**	CFM
Entering Air Temp:	**70.0**	F
Leaving Air Temp:	**110.7**	F
Gas Heating Input Capacity:	**110.0**	MBH
Gas Heating Output Capacity:	**88.0**	MBH
Temperature Rise:	**40.7**	F
Thermal Efficiency (%):	**80.0**	
Supply Fan		
External Static Pressure:	**0.90**	in wg
Fan RPM:	**2308**	
Fan Power:	**1.32**	BHP
NOTE:	**Selected IFM RPM Range: 1478 - 2831**	
Electrical Data		
Voltage Range:	**187 - 253**	
Compressor #1 RLA:	**16**	
Compressor #1 LRA:	**110**	
Indoor Fan Motor Type:	**HIGH**	
Indoor Fan Motor FLA:	**6.4**	
Combustion Fan Motor FLA (ea):	**0.48**	
Power Supply MCA:	**28**	

Power Supply MOCP (Fuse or HACR): **40**
Disconnect Size FLA: **27**
Disconnect Size LRA: **123**
Electrical Convenience Outlet: **None**
Outdoor Fan [Qty / FLA (ea)]: **1 / 1.5**

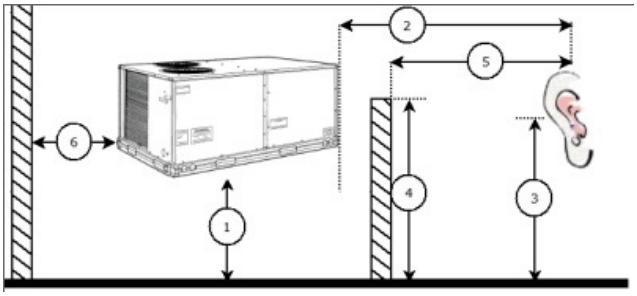
Control Panel SCCR: 5kA RMS at Rated Symmetrical Voltage

Acoustics

Sound Power Levels, db re 10E-12 Watts

	Discharge	Inlet	Outdoor
63 Hz	95.0	91.1	85.6
125 Hz	86.7	82.4	84.7
250 Hz	80.7	73.6	80.5
500 Hz	76.4	69.4	76.0
1000 Hz	73.8	70.9	72.4
2000 Hz	71.2	62.4	68.0
4000 Hz	66.5	55.5	62.8
8000 Hz	61.8	49.4	59.3
A-Weighted	80.2	74.7	79.0

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

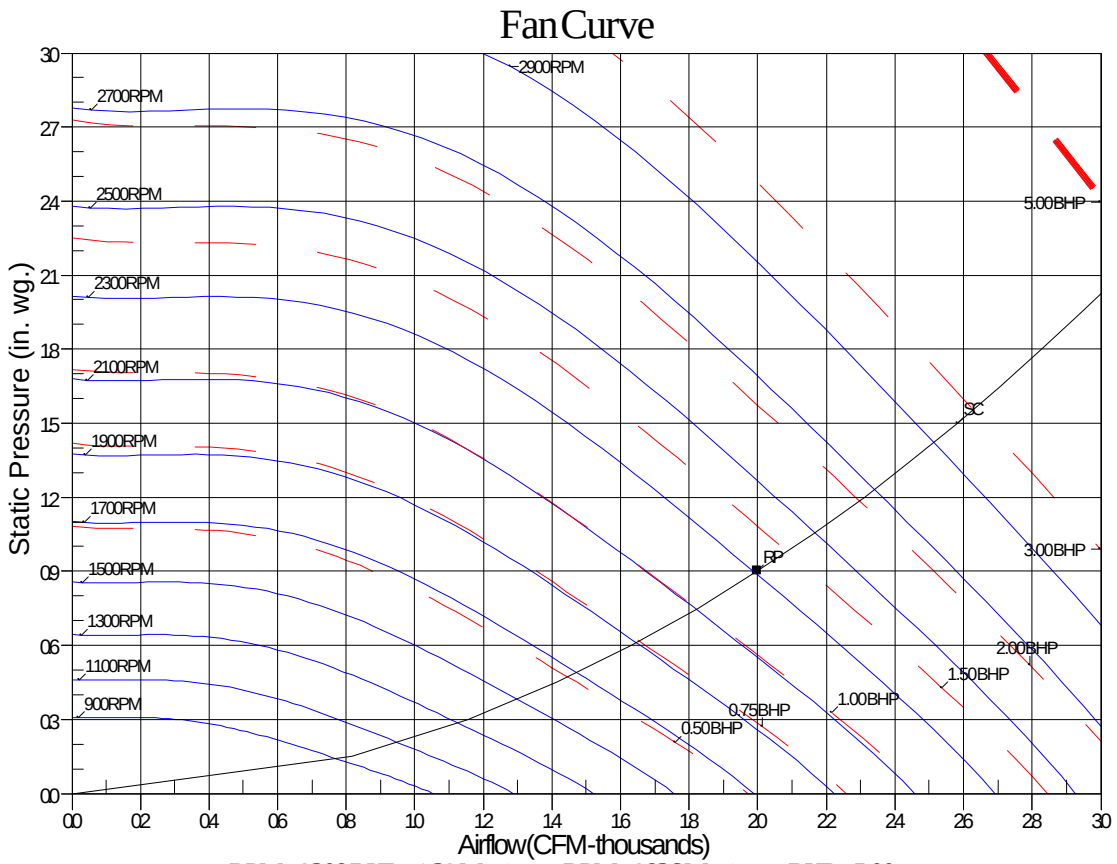
Detailed Acoustics Information

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

Legend
A Sound Power Levels at Unit's Acoustic Center, Lw
B A-Weighted Sound Power Levels at Unit's Acoustic Center, LwA

C Sound Pressure Levels at Specific Distance from Unit, Lp
D A-Weighted Sound Pressure Levels at Specific Distance from Unit, LpA

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



RPM=2308 BHP=1.32 Maximum RPM=2836 Maximum BHP=5.00
SC-System Curve RP-Rated Point

WeatherMaker® - 48FC

PACKAGED ROOFTOP GAS HEATING/ELECTRIC COOLING UNITS-
14 SEER 3, 4, 5 TONS, 15 IEER 6 Ton

ASHRAE 90.1 COMPLIANT

Puron

WEATHERMAKER SERIES

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

Approved and certified by:

AHRI CERTIFIED

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

STANDARD FEATURES INCLUDE:

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

MAINTENANCE FEATURES:

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

INSTALLATION FEATURES:

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

STANDARD WARRANTY:

10-year heat exchanger - 15-year stainless steel option
5-year compressor
3-tear System Vu
1-year parts
Many optional upgrades also available

OPTIONS INCLUDE BUT ARE NOT LIMITED TO:

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

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