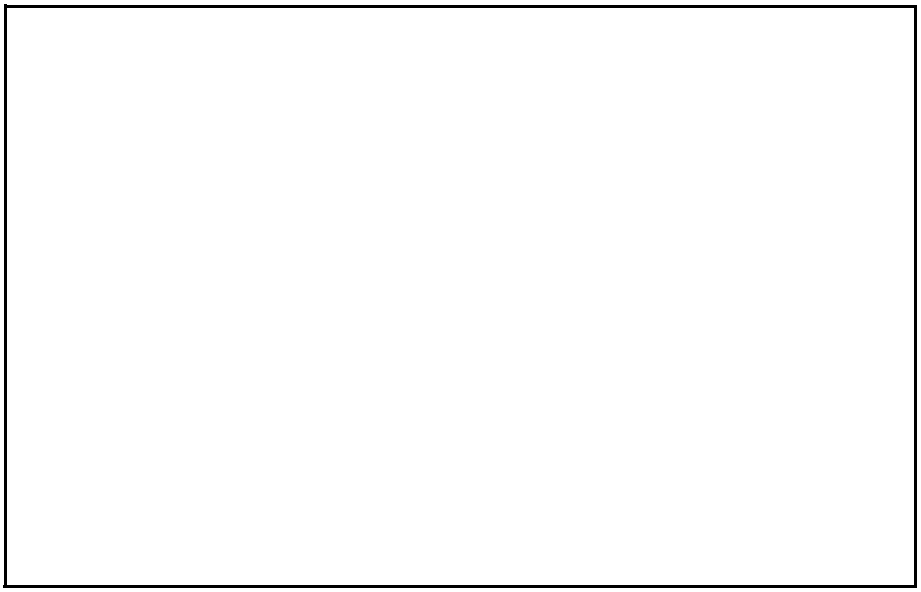
50FC 04-07 WEATHERMAKER® SERIES WITH ECOBLUE™ TECHNOLOGY SINGLE PACKAGE ROOFTOP COOLING ONLY UNITS WITH FIELD-INSTALLED ELECTRIC HEAT

— PERFORMANCE DATA

— CERTIFIED DIMENSION PRINTS

— CERTIFIED ROOF CURB DETAILS



JOB NAME:	LOCATION:	
BUYER:	BUYER PO #:	CARRIER#:
UNIT NUMBER:	MODEL NUMBER:	
PERFORMANCE DATA CERTIFIED BY:		

DESCRIPTION

50FC units are single-packaged cooling only units that are pre-wired and pre-charged with Puron® (R-410A) HFC refrigerant. Electric heat is available as a field-installed accessory. The units are factory tested in the cooling mode. Size 04-06 models use single-stage cooling capacity control. Size 07 models use two-stage cooling capacity control.

FEATURES

Standard Base Unit

- Puron (R-410A) HFC refrigerant
- 14.0 SEER and 15.2 IEER on 3-phase products and 13.8 SEER2 on single-phase products
- IEER of 15.2 (6 Ton)
- Meets or exceeds ASHRAE 90.1-2016 energy efficiency levels
- Rated in accordance with AHRI Standards 210/240 for sizes 04 to 06 and 340/360 for size 07
- Designed in accordance with Underwriters Laboratories Std 1995
- Listed by UL and UL-Canada
- Single-stage cooling capacity control on 04 to 06 models, two-stage on 07 models
- Corrosive resistant composite sloping design; side or center drain condensate pan. Meets ASHRAE Standard 62
- Standard cooling operating range from 40°F up to 115°F (4°C up to 46°C). Field installable accessory extends the minimum down to –20°F (–29°C)
- Field convertible from vertical to horizontal airflow for slab mounting — no special kits required
- Two-inch disposable return air filters
- Thru-the-bottom power entry capability
- Single point electric connections
- 24-volt control circuit protected with resettable circuit breaker
- Direct Drive - EcoBlue™ technology indoor fan system uses vane axial fan design and electronically commutated motor
  - – Shall have inherent automatic-reset thermal overload protection
  - – Shall require no fan/motor belts for operation, adjustments, and/or initial fan speed setup
  - – Shall be internally protected from electrical phase reversal and loss
  - – Shall have slow ramp up to speed control capabilities to help reduce sound and comfort issues
  - – Shall be a slide-out design with two screw removal
  - – On 07 size model with two stage cooling capacity control, the indoor fan speed is automatically controlled to meet the code compliant 66% low fan speed and 100% at full fan speed operation
- Totally enclosed condenser motors with permanently lubricated bearings
- Low-pressure and high-pressure switches
- Full perimeter base rail with built-in rigging adapters and fork truck slots
- Centralized terminal board facilitating simple safety circuit troubleshooting and simplified control box arrangement
- New unit control board with intuitive quick fan speed adjustment

Cabinet

- Access panels with easy grip handles
- Innovative, easy starting, no-strip screw feature on unit access panels
- Pre-painted exterior panels and primer-coated interior panels tested to 500 hours salt spray protection
- Fully insulated cabinet
- Tool-less filter access door

Refrigerant System

- Acutrol™ refrigerant metering system on 04 to 06 models, TXV on 07 models
- Liquid line filter drier
- Scroll compressors with internal line-break overload protection (one-stage on 04 to 06 models, two-stage on 07 models)
- Copper tube, aluminum fin coils with optional corrosion resistant coils
- Top cover removable gage line plugs for reading refrigerant pressure with unit panels in place

Standard Limited Parts Warranty

- 5-year compressor parts
- 5-year factory installed Ultra Low Leak Economizer
- 3-year SystemVu™ controls
- 1-year parts

PERFORMANCE DATA

Unit Operating Weight _____ lb

COOLING

Gross Total Capacity _____ Btuh

at Condenser Air Temperature _____ °F

Gross Sensible Capacity _____ Btuh

Compressor Power Input _____ kW

Indoor Entering: db _____ °F / wb _____ °F

Airflow _____ CFM External Static Pressure _____ in. wg

Indoor Fan Motor Size _____ HP

Indoor Fan Motor Setting _____ Vdc

Exhaust Fan Motor Size _____ HP

Curb Weight _____ lb

HEATING (ELECTRIC)

Heating Capacity:

Stage 1 _____ Btuh

Stage 2 _____ Btuh

Heating Capacity Total _____ Btuh

Stage 1 _____ kW

Stage 2 _____ kW

Heating Capacity Total _____ kW

ELECTRICAL DATA

Power Supply to Unit _____

Volts _____

Phase _____ Hz

Maximum Circuit Amps _____

Maximum Overcurrent Protection _____

SUBMITTAL DATA

Job Name _____

Architect _____

Engineer _____

Contractor _____

Unit Designation _____

FACTORY-INSTALLED OPTIONS

☐ **Economizer with DRY BULB Sensing and Barometric Relief (04-06 sizes)**

Low Leak Air Dampers —

- ◯ Models with W7212 controller provide standard non-diagnostic control (EconoMi$er® IV system).
- ◯ Models with W7220 controller meet California Title 24 (Section 120.2), IECC, and ASHRAE 90.1 for Fault Detection and Diagnostic (FDD) requirements (EconoMi$er X system).
- ◯ Models with RTU Open controller meet California Title 24 (Section 120.2), IECC, and ASHRAE 90.1 for Fault Detection and Diagnostic (FDD) requirements (EconoMi$er 2 system).

☐ **Economizer with ENTHALPY Sensing and Barometric Relief (04-06 sizes)**

Low Leak Air Dampers —

- ◯ Models with W7212 controller provide standard non-diagnostic control (EconoMi$er® IV system).
- ◯ Models with W7220 controller meet California Title 24 (Section 120.2), IECC, and ASHRAE 90.1 for Fault Detection and Diagnostic (FDD) requirements (EconoMi$er X system).
- ◯ Models with RTU Open controller meet California Title 24 (Section 120.2), IECC, and ASHRAE 90.1 for Fault Detection and Diagnostic (FDD) requirements (EconoMi$er 2 system).

☐ **Economizer with DRY BULB Sensing and Barometric Relief (04-07 sizes)**

ULTRA LOW LEAK Air Dampers —

- ◯ Models with W7220 controller meet California Energy Commission Title 24-2016 prescriptive section 140.4 (damper leakage, etc.), and mandatory section 120.2.i for Fault Detection and Diagnostic controls. Economizers meet ASHRAE 90.1-2016 damper leakage requirements as stated in section 6.5.1.1.4 and Table 6.4.3.4.3, and meet 2016 Fault Detection and Diagnosis requirements in section 6.4.3.12. For outside air, return, and relief air damper leakage requirements economizers meet IECC 2012 section C402.4.5.2 and IECC 2015 sections C403.2.4.3 and C403.3.3.5 and IECC 2015 section C403.2.4.7 for Fault Detection and Diagnostic requirements.
  NOTE: IECC 2015 section C403.2.4.7.1 requires differential return air sensor, which must be ordered separately.
  Outside air, return air, and relief air (volume) dampers are AMCA rated — plus 5 year limited parts warranty (EconoMi$er X system).
- ◯ Models with RTU Open and SystemVu meet California Energy Commission Title 24-2016 prescriptive section 140.4 (damper leakage, etc.) and mandatory section 120.2.i for Fault Detection and Diagnostic requirements. Economizers meet ASHRAE 90.1-2016 damper leakage requirements as stated in section 6.5.1.1.4 and Table 6.4.3.4.3, and meet 2016 Fault Detection and Diagnosis requirements in section 6.4.3.12. Economizers meet IECC 2012 section C402.4.5.2 and IECC 2015 sections C403.2.4.3 and C403.3.3.5 for outside air, return air, and relief air damper leakage requirements and IECC 2015 section C403.2.4.7 for Fault Detection and Diagnostic requirements.
  NOTE: IECC 2015 section C403.2.4.7.1 requires differential return air sensor, which must be ordered separately.
  Outside air, return air, and relief air (volume) dampers are AMCA rated — plus 5 year limited parts warranty (EconoMi$er 2 system).

☐ **Economizer with ENTHALPY Sensing and Barometric Relief (04-07 sizes)**

ULTRA LOW LEAK Air Dampers —

- ◯ Models with W7220 controller meet California Energy Commission Title 24-2016 prescriptive section 140.4 (damper leakage, etc.), and mandatory section 120.2.i for Fault Detection and Diagnostic controls. Economizers meet ASHRAE 90.1-2016 damper leakage requirements as stated in section 6.5.1.1.4 and Table 6.4.3.4.3, and meet 2016 Fault Detection and Diagnosis requirements in section 6.4.3.12. For outside air, return, and relief air damper leakage requirements economizers meet IECC 2012 section C402.4.5.2 and IECC 2015 sections C403.2.4.3 and C403.3.3.5 and IECC 2015 section C403.2.4.7 for Fault Detection and Diagnostic requirements.
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  Outside air, return air, and relief air (volume) dampers are AMCA rated — plus 5 year limited parts warranty (EconoMi$er X system).
- ◯ Models with RTU Open and SystemVu meet California Energy Commission Title 24-2016 prescriptive section 140.4 (damper leakage, etc.) and mandatory section 120.2.i for Fault Detection and Diagnostic requirements. Economizers meet ASHRAE 90.1-2016 damper leakage requirements as stated in section 6.5.1.1.4 and Table 6.4.3.4.3, and meet 2016 Fault Detection and Diagnosis requirements in section 6.4.3.12. Economizers meet IECC 2012 section C402.4.5.2 and IECC 2015 sections C403.2.4.3 and C403.3.3.5 for outside air, return air, and relief air damper leakage requirements and IECC 2015 section C403.2.4.7 for Fault Detection and Diagnostic requirements.
  NOTE: IECC 2015 section C403.2.4.7.1 requires differential return air sensor, which must be ordered separately.
  Outside air, return air, and relief air (volume) dampers are AMCA rated — plus 5 year limited parts warranty (EconoMi$er 2 system).

FACTORY-INSTALLED OPTIONS (CONT)

Standard Base Unit

☐ SystemVu™ controls that include:

- Large full text - multi-line display
- USB flash port for data transfer
- Built in i-Vu®, CCN, and BACnet
- Refrigerant pressure from display
- Quick LED status — Run, Alert, Fault
- Conventional slat or sensor capabilities
- Historical component runtime and starts
- Supply air tempering
- Equipment Touch™/System Touch™ compatibility
- Demand limiting and ZS sensor compatibility

☐ RTU Open multi-protocol controller communicates to BACnet™[1], Modbus®[1], LonWorks®[1], and Johnson N2 protocols.

☐ Through the base connectors for electric conduit/ piping

☐ Humidi-MiZer® adaptive dehumidification system (This option should also include low ambient controls)

1. Third-party trademarks and logos are the property of their respective owners.

☐ Two-position motorized outdoor air damper (04-06 sizes)

☐ Non-fused disconnect

☐ Powered 115-volt convenience outlet

☐ Non-powered 115-volt convenience outlet

☐ High static evaporator fan motor

☐ Return air smoke detector

☐ Supply air smoke detector

☐ CO_2 sensor

☐ Condenser hail guard - louvered style

☐ Special coating protection for evaporator and condenser coils

☐ Hinged access doors

☐ Condensate overflow switch

☐ MERV-8 Return Air Filters

☐ Phase monitor protection (3-phase models only)

Optional Warranties

☐ Complete unit parts only, up to 5 years

☐ Complete unit parts and labor, up to 5 years

Many other optional warranties are available. See the Commercial Start-Up and Optional Extended Warranty Price pages for further information.

FIELD-INSTALLED ACCESSORIES

NOTE: 50FC 07 models use two-speed indoor fan logic, the W7212 controller is designed for single-speed motor control. See Application Tip "ROOFTOP-18-01" for guidance when using this unit.

☐ **Economizer with DRY BULB Sensing and Barometric Relief**

Low Leak Air Dampers —

◯ Models with W7212 controller provide standard non-diagnostic control (EconoMi$er® IV system).

◯ Models with W7220 controller meet California Title 24 (Section 120.2), IECC, and ASHRAE 90.1 for Fault Detection and Diagnostic (FDD) requirements (EconoMi$er X system).

◯ Models with RTU Open controller meet California Title 24 (Section 120.2), IECC, and ASHRAE 90.1 for Fault Detection and Diagnostic (FDD) requirements (EconoMi$er 2 system).

☐ **Economizer with ENTHALPY Sensing and Barometric Relief**

Low Leak Air Dampers —

◯ Models with W7212 controller provide standard non-diagnostic control. (EconoMi$er IV system)

◯ Models with W7220 controller meet California Title 24 (Section 120.2), IECC, and ASHRAE 90.1 for Fault Detection and Diagnostic (FDD) requirements (EconoMi$er X system).

◯ Models with RTU Open controller meet California Title 24 (Section 120.2), IECC, and ASHRAE 90.1 for Fault Detection and Diagnostic (FDD) requirements (EconoMi$er 2 system).

☐ **Economizer with DRY BULB Sensing and Barometric Relief**

ULTRA LOW LEAK Air Dampers —

◯ Models with W7220 controller meet California Energy Commission Title 24-2016 prescriptive section 140.4 (damper leakage, etc.), and mandatory section 120.2.i for Fault Detection and Diagnostic controls. Economizers meet ASHRAE 90.1-2016 damper leakage requirements as stated in section 6.5.1.1.4 and Table 6.4.3.4.3, and meet 2016 Fault Detection and Diagnosis requirements in section 6.4.3.12. For outside air, return, and relief air damper leakage requirements economizers meet IECC 2012 section C402.4.5.2 and IECC 2015 sections C403.2.4.3 and C403.3.3.5 and IECC 2015 section C403.2.4.7 for Fault Detection and Diagnostic requirements.
NOTE: IECC 2015 section C403.2.4.7.1 requires differential return air sensor, which must be ordered separately.
Outside air, return air, and relief air (volume) dampers are AMCA rated.

◯ Models with RTU Open meet California Energy Commission Title 24-2016 prescriptive section 140.4 (damper leakage, etc.) and mandatory section 120.2.i for Fault Detection and Diagnostic requirements. Economizers meet ASHRAE 90.1-2013 / 2016 damper leakage requirements as stated in section 6.5.1.1.4 and Table 6.4.3.4.3, and meet 2016 Fault Detection and Diagnosis requirements in section 6.4.3.12. Economizers meet IECC 2012 section C402.4.5.2 and IECC 2015 sections C403.2.4.3 and C403.3.3.5 for outside air, return air, and relief air damper leakage requirements and IECC 2015 section C403.2.4.7 for Fault Detection and Diagnostic requirements.
NOTE: IECC 2015 section C403.2.4.7.1 requires differential return air sensor, which must be ordered separately.
Outside air, return air, and relief air (volume) dampers are AMCA rated — plus 5 year limited parts warranty (EconoMi$er 2 system).

☐ **Economizer with ENTHALPY Sensing and Barometric Relief**

ULTRA LOW LEAK Air Dampers —

◯ Models with W7220 controller meet California Energy Commission Title 24-2016 prescriptive section 140.4 (damper leakage, etc.), and mandatory section 120.2.i for Fault Detection and Diagnostic controls. Economizers meet ASHRAE 90.1-2016 damper leakage requirements as stated in section 6.5.1.1.4 and Table 6.4.3.4.3, and meet 2016 Fault Detection and Diagnosis requirements in section 6.4.3.12. For outside air, return, and relief air damper leakage requirements economizers meet IECC 2012 section C402.4.5.2 and IECC 2015 sections C403.2.4.3 and C403.3.3.5 and IECC 2015 section C403.2.4.7 for Fault Detection and Diagnostic requirements.
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Outside air, return air, and relief air (volume) dampers are AMCA rated.

◯ Models with RTU Open meet California Energy Commission Title 24-2016 prescriptive section 140.4 (damper leakage, etc.) and mandatory section 120.2.i for Fault Detection and Diagnostic requirements. Economizers meet ASHRAE 90.1-2016 damper leakage requirements as stated in section 6.5.1.1.4 and Table 6.4.3.4.3, and meet 2016 Fault Detection and Diagnosis requirements in section 6.4.3.12. Economizers meet IECC 2012 section C402.4.5.2 and IECC 2015 sections C403.2.4.3 and C403.3.3.5 for outside air, return air, and relief air damper leakage requirements and IECC 2015 section C403.2.4.7 for Fault Detection and Diagnostic requirements.
NOTE: IECC 2015 section C403.2.4.7.1 requires differential return air sensor, which must be ordered separately.
Outside air, return air, and relief air (volume) dampers are AMCA rated — plus 5 year limited parts warranty (EconoMi$er 2 system).

FIELD-INSTALLED ACCESSORIES (CONT)

NOTE: 50FC 07 models use two-speed indoor fan logic, the two-position damper and manual dampers are designed for single-speed motor control. See Application Tip "ROOFTOP-18-01" for further guidance when using this unit.

- ☐ Electric heater(s)
- ☐ Power exhaust — prop fan design
- ☐ Two-position motorized outdoor air damper
- ☐ Manual outside air damper 25%
- ☐ Manual outside air damper 50%
- ☐ Roof curb — 14 inch (356mm) tall
- ☐ Roof curb — 24 inch (610mm) tall
- ☐ Thru-the-bottom connections, electrical only
- ☐ Condenser hail guard, louvered style
- ☐ Phase monitor (loss of phase/phase reversal)
- ☐ Winter start kit, down to 25°F (–4°C)
- ☐ Fan/Filter status switch
- ☐ Low ambient head pressure controller, down to 0°F (–18°C)
- ☐ Low ambient head pressure controller, down to –20°F (–29°C)
- ☐ Time Guard II compressor anti-cycle protection
- ☐ Thermostats and sensors
  NOTE: Size 07 model has two-stage cooling thermostat; use appropriate thermostat.

<u>Economizer Sensors</u>

- ☐ Single dry bulb control
- ☐ Differential dry bulb control
- ☐ Single enthalpy control
- ☐ Differential enthalpy control
- ☐ CO_2 — wall mounted
- ☐ CO_2 — duct mounted
- ☐ CO_2 — unit mounted

CERTIFIED DIMENSION PRINT

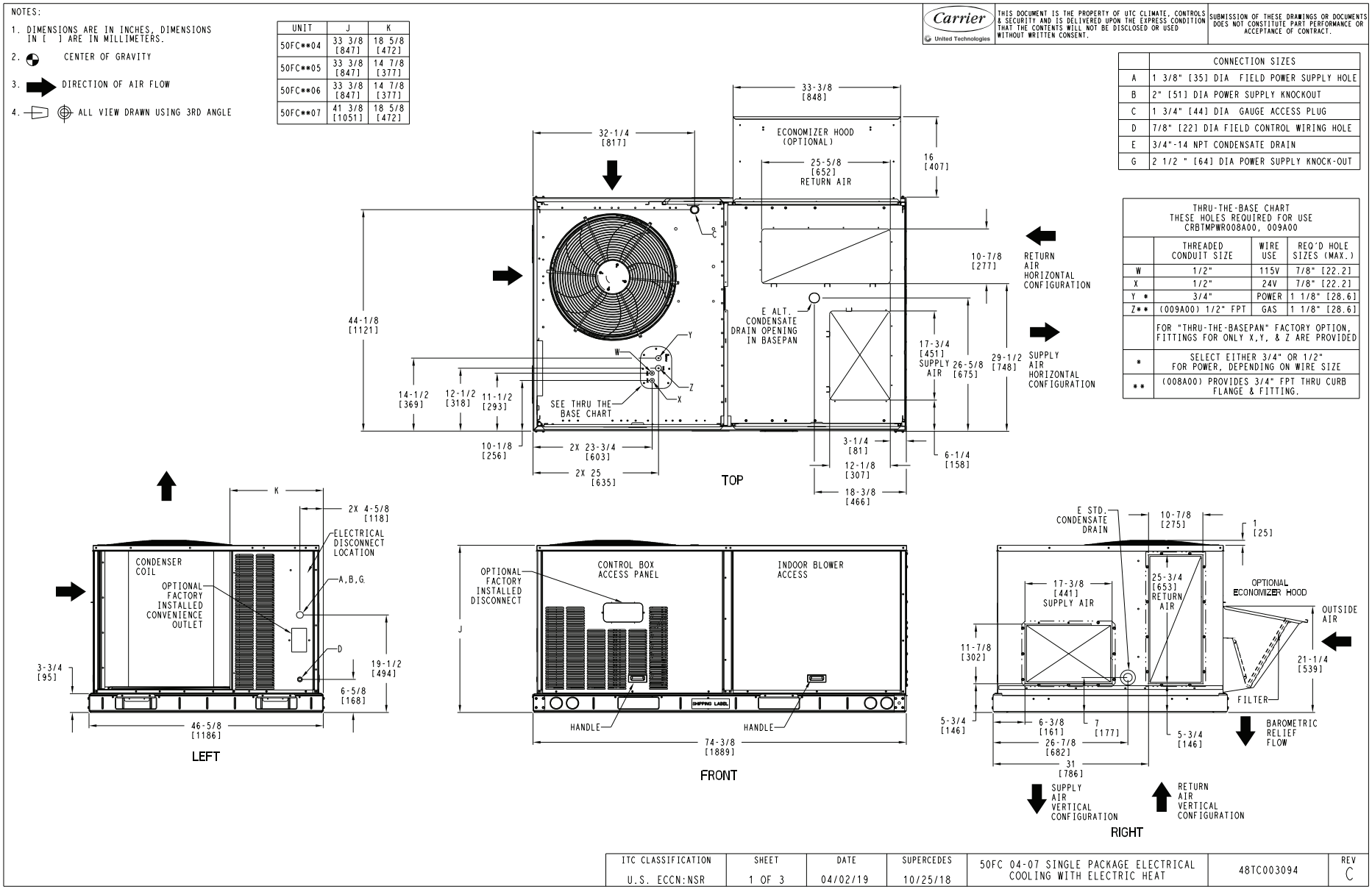
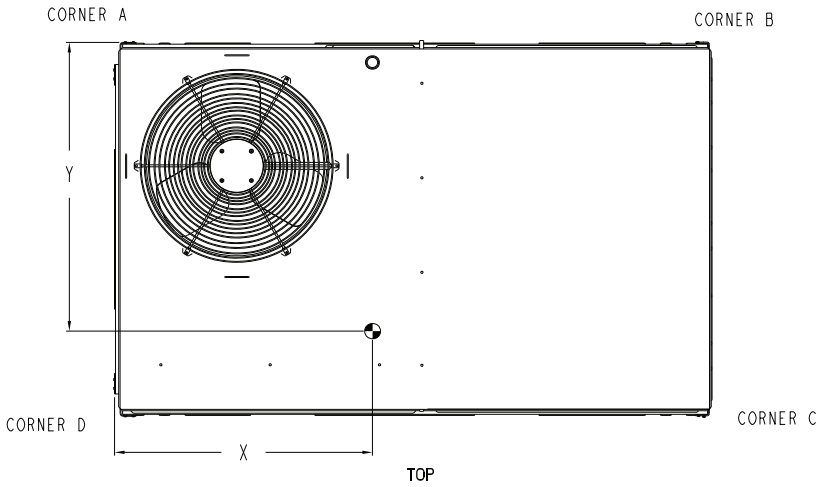


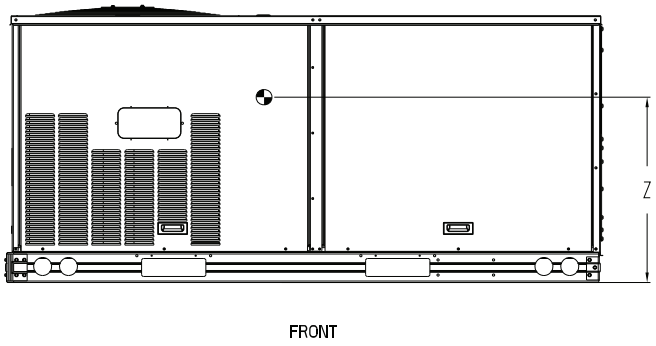
Fig. 1 — 50FC04-07 Dimensional Drawing**

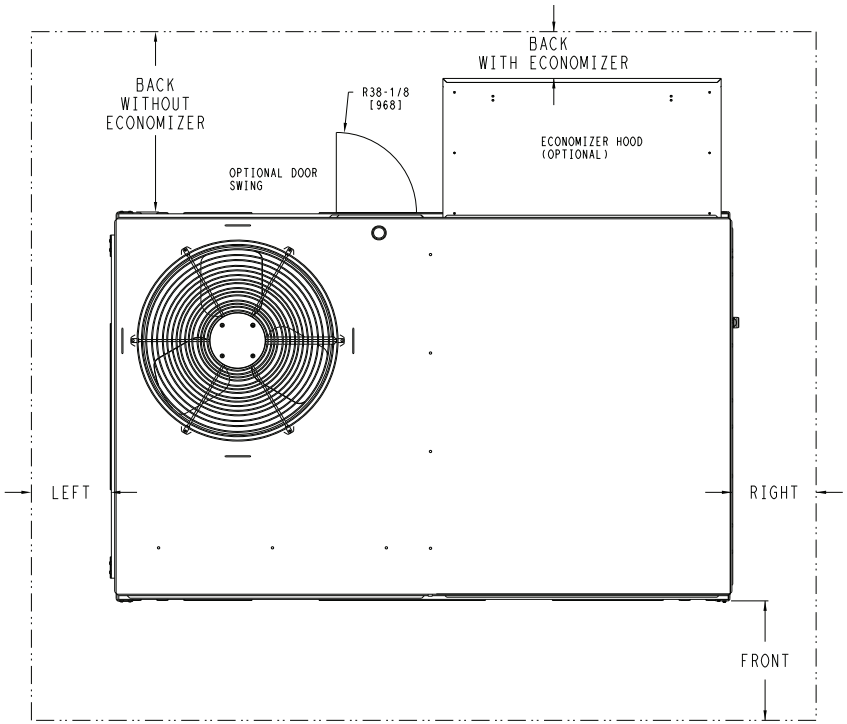
CERTIFIED DIMENSION PRINT

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

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







NOTE:

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 W/O HOOD	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	04/02/19	10/25/18	50FC 04-07 SINGLE PACKAGE ELECTRICAL COOLING WITH ELECTRIC HEAT	48TC003094	C

Fig. 1 — 50FC04-07 Dimensional Drawing (cont)**

CERTIFIED DIMENSIONS PRINT

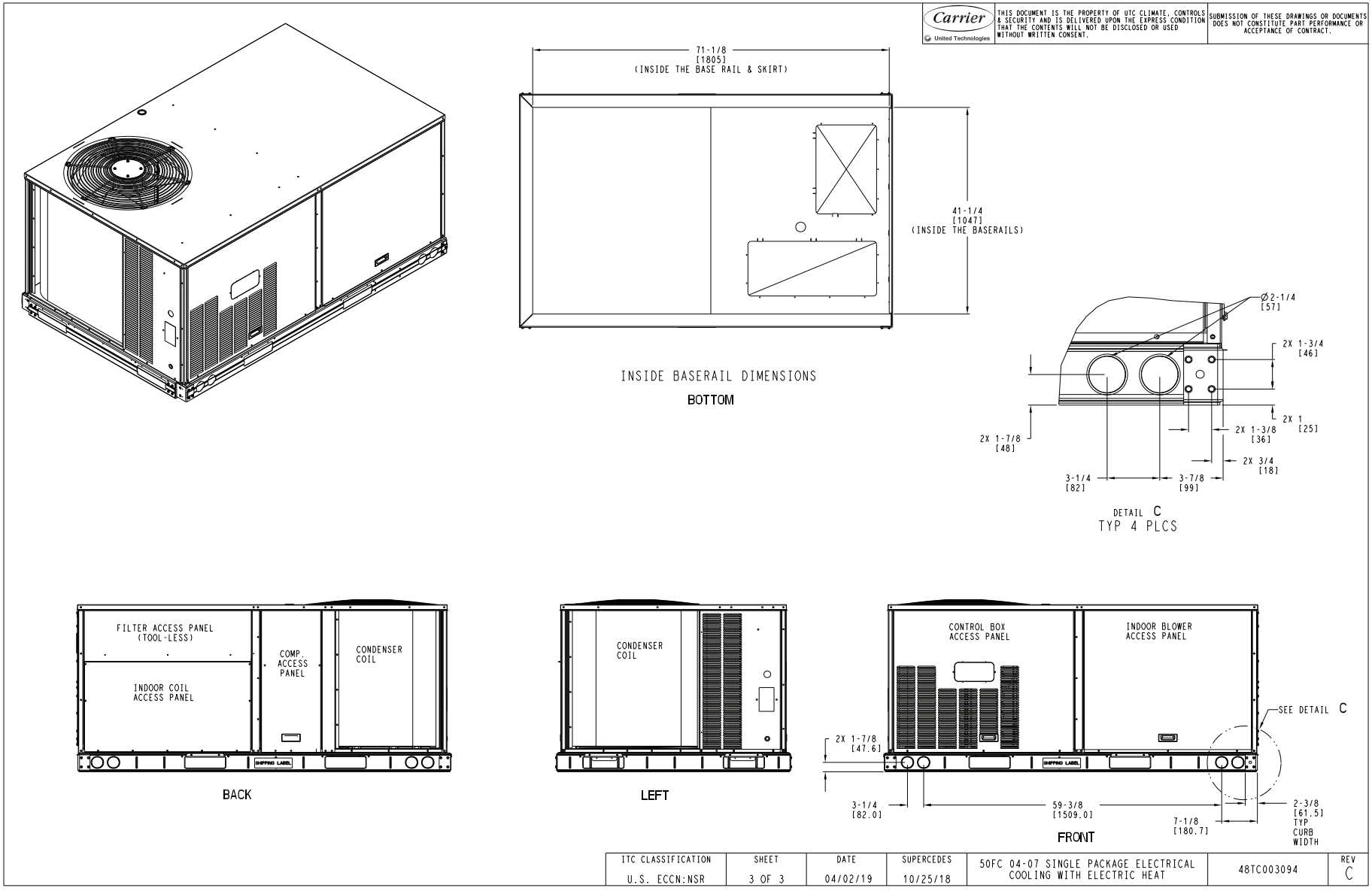


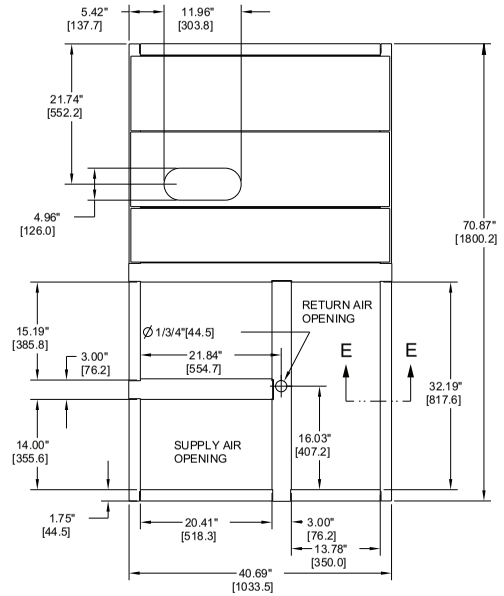
Fig. 1 — 50FC04-07 Dimensional Drawing (cont)**

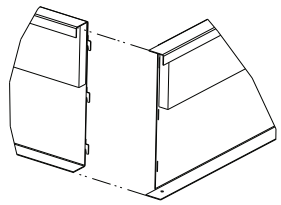
ROOF CURB DETIALS

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

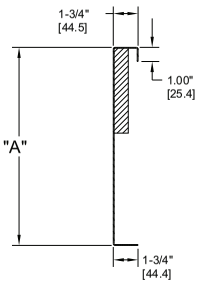
NOTES:
1. ROOFCURB ACCESSORY IS SHIPPED DISASSEMBLED.
2. INSULATED PANELS: 25.4 [1"] THK. POLYURETHANE FOAM, 44.5 [1-3/4] # DENSITY.
3. DIMENSIONS IN [ ] ARE IN MILLIMETERS.
4. ROOFCURB: 18 GAGE STEEL.
5. ATTACH DUCTWORK TO CURB. (FLANGES OF DUCT REST ON CURB).
6. SERVICE CLEARANCE 4 FEET ON EACH SIDE.
7. ▨ DIRECTION 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			

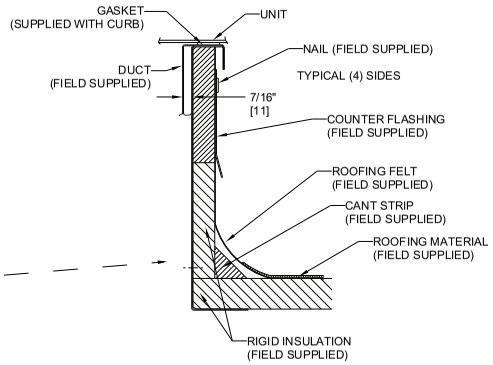


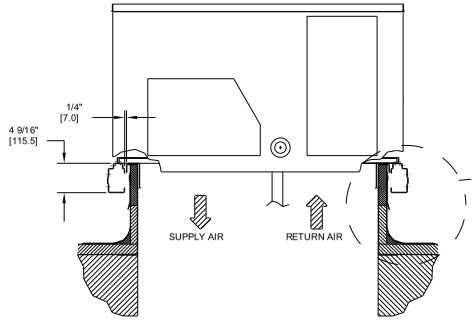


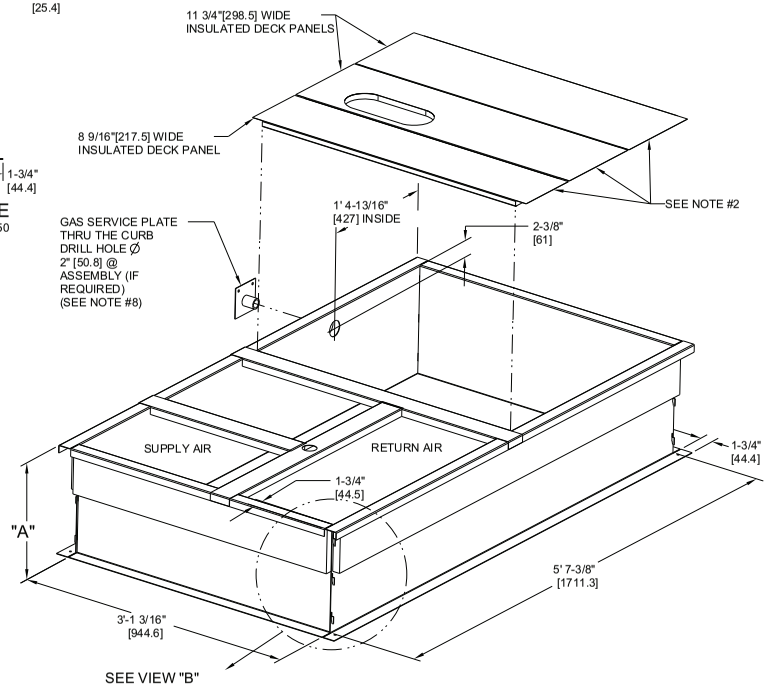
VIEW "B"
CORNER DETAIL



SECTION E-E
SCALE 0.250







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

DRAWING RELEASE LEVEL: PRODUCTION					
THIRD ANGLE PROJECTION	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON: 1 DEC ± - 2 DEC ± - 3 DEC ± - ANG ± °				
MATERIAL - - -	AUTHORIZATION NUMBER 1041738	TITLE CURB ASY, ROOF			
ENGINEERING REQUIREMENTS T-005, Y-002	ENGINEERING - MANUFACTURING -	SIZE D	DRAWING NUMBER 48TC400427 SHEET 5 OF 5	REV B	
WEIGHT: -	DRAFTER MMC 06/17/11 CHECKER -				
SURFACE FINISH -	MFG/PURCH PURCH	MODEL (INTERNAL USE ONLY)	NEXT DRAWING -	SCALE N/A	DISTRIBUTION MMC

Fig. 2 — 50FC04-07 Roof Curb Accessory Details**