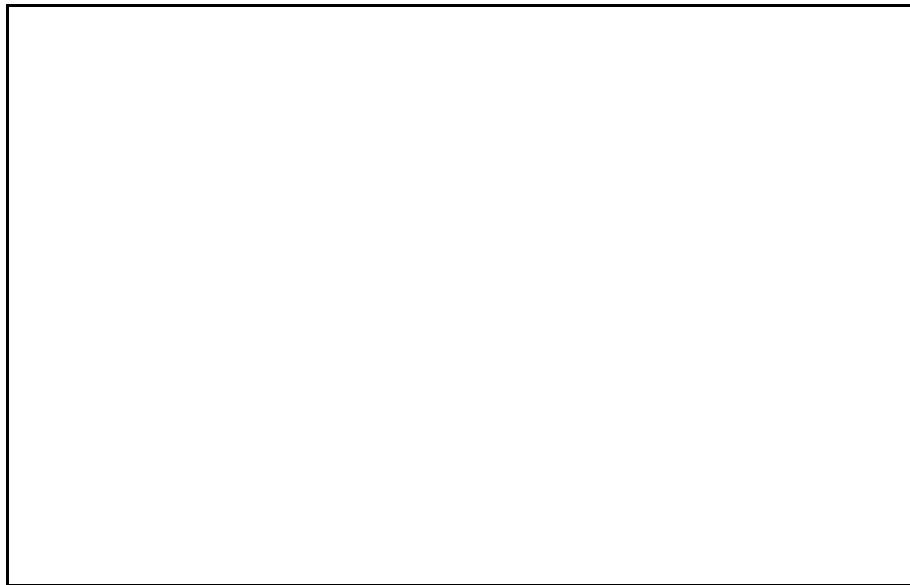




**50FCQ 04-07 WEATHERMAKER® SERIES
SINGLE PACKAGE ROOFTOP
HEAT PUMP, WITH FIELD-INSTALLED
ELECTRIC HEAT, PURON® (R-410A)
REFRIGERANT**

- 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

50FCQ units are standard-efficiency, single-packaged heat pump units with Ecoblue™ Technology that are pre-wired and pre-charged with Puron® refrigerant. Electric heat is available as a field-installed accessory. The units are fully factory tested and agency certified. These units have field convertible supply and return openings and are intended for installation on a roof curb accessory (ordered separately), or for slab mounting (for horizontal duct connections). Units may be ordered with various factory-installed options. Field-installed accessories are also available.

FEATURES

Standard Base Unit

- Puron (R-410A) HFC refrigerant
- SEER efficiency levels up to 14.3
- IEER up to 15.0 (6 ton models)
- HSPFs up to 8.2 (COPs to 3.8)
- ASHRAE 90.1 compliant and Energy Star qualified
- Rated in accordance with AHRI Standards 210/240 (3-5 ton sizes) and 340/360 (6 ton sizes)
- Designed in accordance with Underwriters Laboratories Std 1995
- Listed by UL and UL-Canada
- Non-corrosive composite sloping design; side or center drain condensate pan. Meets ASHRAE Standard 62
- Single-stage cooling capacity control on 3-5 ton while 6 ton models have two-stage cooling capacity control
- Standard cooling operating range up to 115°F (46°C) and down to 40°F (4°C). Low Ambient allows cooling operation down to -20°F (-29°C)
- Convertible from vertical to horizontal airflow for slab mounting
- Two-inch disposable return air filters
- Thru-the-bottom power entry capability
- Single point electric connections on field-installed electric heat units
- 24-volt control circuit protected with resettable circuit breaker and 75-VA transformer
- Direct Drive - EcoBlue™ Technology indoor fan system uses Vane Axial fan design and electronically commutated motor.
- Totally enclosed condenser motors with permanently lubricated bearings
- State-of-the-art defrost control board, easily configured for defrost cycles of 30, 60, 90, or 120 minutes
- New Unit Control Board with intuitive quick fan adjustment
- Loss of charge, high-pressure, and freeze protection switches
- Full perimeter base rail with built-in rigging adapters and fork truck slots

Cabinet

- Access panels with easy grip handles and replaceable no-strip screw collar
- 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 04-06 models, TXV on 07 size models
- Liquid line filter drier
- Scroll compressors with internal line-break overload protection
- Indoor and outdoor coils constructed of aluminum fins mechanically bonded to seamless copper tubes
- Removable gauge line plugs for reading refrigerant pressure with unit panels in place
- Four-way reversing valve operation
- Suction line accumulator standard - prevents excessive liquid flood back of refrigerant to the compressor even during the start of the defrost cycle

Standard Limited Parts Warranty

- 5-year electric heater (field-installed)
- 3-year SystemVu Controller
- 5-year compressor
- 1-year parts

PERFORMANCE DATA

Unit Operating Weight _____ lb	Curb Weight _____ lb
COOLING	HEATING (ELECTRIC)
Net Total Capacity _____ Btuh	Power Input to Unit _____ kW
Net Sensible Capacity _____ Btuh	Integrated Capacity _____ Btuh
Compressor Power Input _____ kW	Indoor Operating Air Temperature _____ °F db
at Outdoor Air Temperature _____ °F	Outdoor Air Temperature _____ °F (Winter Design)
Indoor Entering: db _____ °F / wb _____ °F	Rating at 70% R.H. Outdoors _____ kW Heater Selected
Airflow _____ CFM External Static Pressure _____ in. wg	_____ Heat/Cool Ratio
	Electrical Capacity Required _____ Btuh

ELECTRICAL DATA

Power Supply to Unit _____
 Volts _____
 Phase _____ Hz
 Maximum Circuit Amps _____
 Maximum Overcurrent Protection (Fuse Only) _____

SUBMITTAL DATA

Job Name _____
 Architect _____
 Engineer _____
 Contractor _____
 Unit Designation _____



FACTORY-INSTALLED OPTIONS

Economizer with DRY BULB Sensing and Barometric Relief¹

Standard Leak Air Dampers —

- Models with W7212 controller provide standard non-diagnostic control (EconoMiSer® IV system).
- Models with W7220 controller meet California Title 24 (Section 120.2) for Fault Detection and Diagnostic (FDD) requirements (EconoMiSer X system).
- Models with RTU Open controller meet California Title 24 (Section 120.2) Fault Detection and Diagnostic (FDD) requirements (EconoMiSer 2 system).

Economizer with ENTHALPY Sensing and Barometric Relief¹

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Economizer with DRY BULB Sensing and Barometric Relief¹

ULTRA LOW LEAK Air Dampers —

- Models with W7220 controller meet California Title 24 section 120.2 Fault Detection and Diagnostic (FDD) requirements, has return, outside air and relief damper leakage that meet Title 24 (section 140.4 and ASHRAE 90.1) requirements - plus 5 year limited parts warranty (EconoMiSer X system).
- Models with RTU Open controller meet California Title 24 (section 120.2) Fault Detection and Diagnostic (FDD) requirements, has return, outside air and relief damper leakage that meets Title 24 (section 140.4 and ASHRAE 90.1) requirements - plus 5 year limited parts warranty. (EconoMiSer 2 system).

Economizer with ENTHALPY Sensing and Barometric Relief¹

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SystemVu Controls

- 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 stat or sensor capabilities
- Historical component runtime and starts
- Supply Air Tempering
- Equipment / System Touch Compatibility
- Demand Limiting and ZS Sensor Compatibility

RTU Open multi-protocol controller communicates to LonWorks², MODBUS³, BACnet⁴, and Johnson N2 protocols

- Through-the-base connectors for electric conduit
- Non-fused disconnect (80A max)
- Powered 115-volt convenience outlet
- Non-powered 115-volt convenience outlet
- High static evaporator fan motor
- Return air smoke detector
- Supply air smoke detector
- Smoke detectors — return and supply air
- Pre-coated Al/Cu condenser coil
- E-coated Al/Cu condenser coil
- E-coated Al/Cu condenser and evaporator coil
- Cu/Cu condenser coil
- Cu/Cu condenser coil and evaporator coil
- Condenser hail guard - louvered style¹
- CO₂ sensor
- Hinged access doors
- Condensate overflow switch

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.

1. Not available for single phase (-3 voltage) models.

2. LonWorks is a registered trademark of Echelon Corporation.
 3. MODBUS is a registered trademark of Schneider Electric.
 4. BACnet is a registered trademark of ASHRAE (American Society of Heating, Refrigerating and Air-Conditioning Engineers).

FACTORY-INSTALLED ACCESSORIES

Economizer with DRY BULB Sensing and Barometric Relief¹

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- Models with RTU Open controller meet California Title 24 (Section 120.2) Fault Detection and Diagnostic (FDD) requirements (EconoMiSer 2 system).

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- Power exhaust - vertical or horizontal
- Electric heat
- Single point kit
- Two-position motorized outdoor air damper
- Manual outdoor air damper 25%
- Manual outdoor air damper 50%
- Roof curb - 14 inch (356 mm) tall
- Roof curb - 24 inch (610 mm) tall
- Thru-the-bottom utility connection kit
- Time Guard II compressor anti-cycle control
- Outdoor coil hail guard - louvered style
- Programmable setback thermostat
- Phase monitor (loss of phase/phase reversal)
- Condensate overflow switch

Economizer Sensors

- Single dry bulb control
- Differential dry bulb control
- Single enthalpy control
- Differential enthalpy control
- CO₂ — wall mounted
- CO₂ — duct mounted

1. Not available for single phase (-3 voltage) models.

CERTIFIED DIMENSION PRINT

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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
50FCQ*04	33-3/8 (848)	7-0 (178)
50FCQ*05	33-3/8 (848)	14-7/8 (377)
50FCQ*06	41-3/8 (1051)	18-5/8 (472)
50FCQ*07	41-3/8 (1051)	18-5/8 (472)

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 CBB1PWR0000A00 - 009A00		
W	THREADED CONDUIT SIZE	WIRE USE SIZES (MAX.)
X	1/2"	115V 7/8" (22.2)
Y	1/2"	24V 7/8" (22.2)
Z	3/4"	POWER 1 1/8" (28.6)
W*	(009A00) 1/2" - FET GAS	1 1/8" (28.6)

FOR "THRU-THE-BASEPANEL" FACTORY OPTION, FITTINGS FOR ONLY X, Y, & Z ARE PROVIDED FOR POWER. DEPEND ON WIRE SIZE (008A00) PROVIDES 3/4" - FET THRU CURB FLANGE & FITTING.

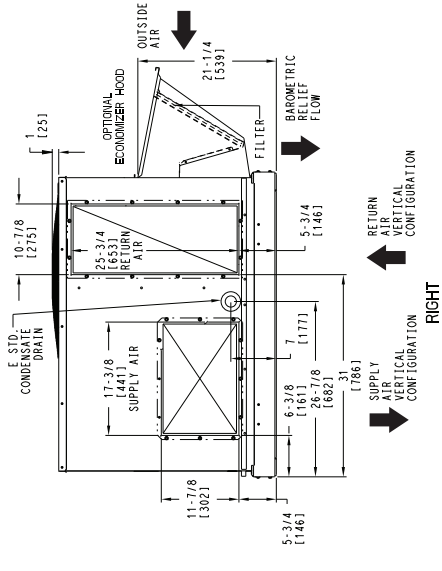
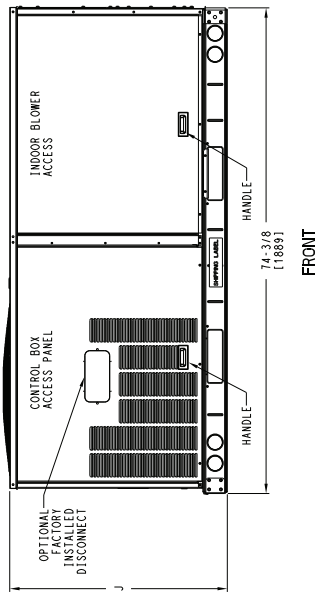
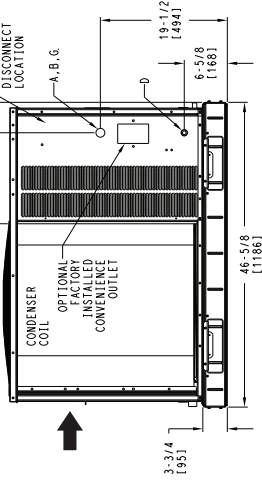
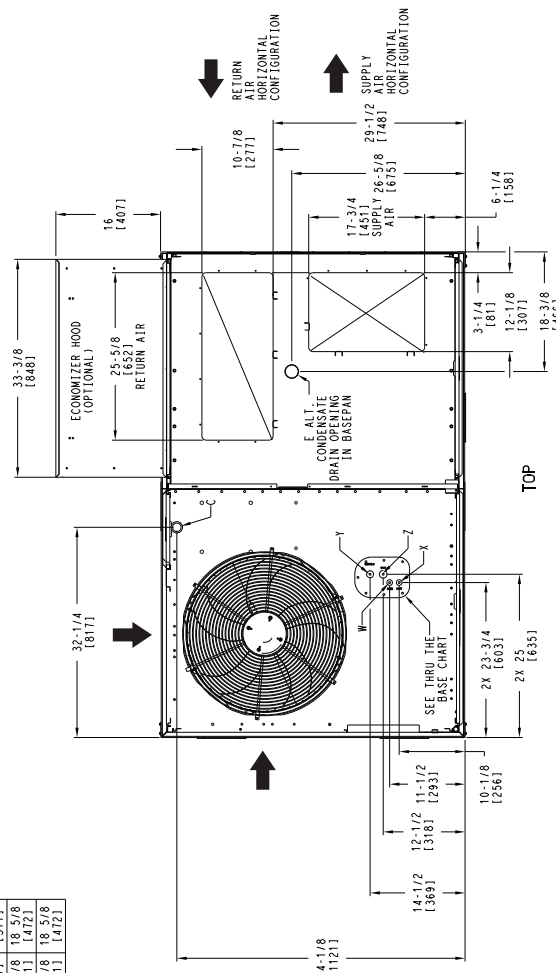


Fig. 1 — 50FCQ*04-07 Dimensional Drawing

ITC CLASSIFICATION	SHEET	DATE	SUPERCEDES	50FCQ 04-07 SINGLE PACKAGE HEAT PUMP	REV
U.S. ECCN: NSR	1 OF 3	08/15/19		48TC003348	-

CERTIFIED DIMENSION PRINT

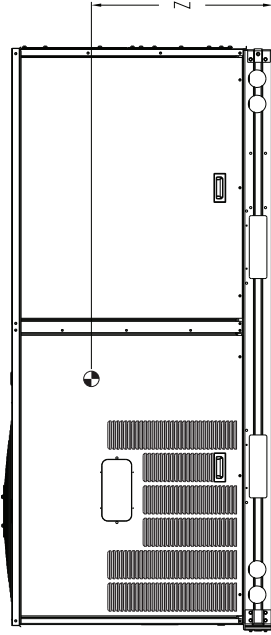
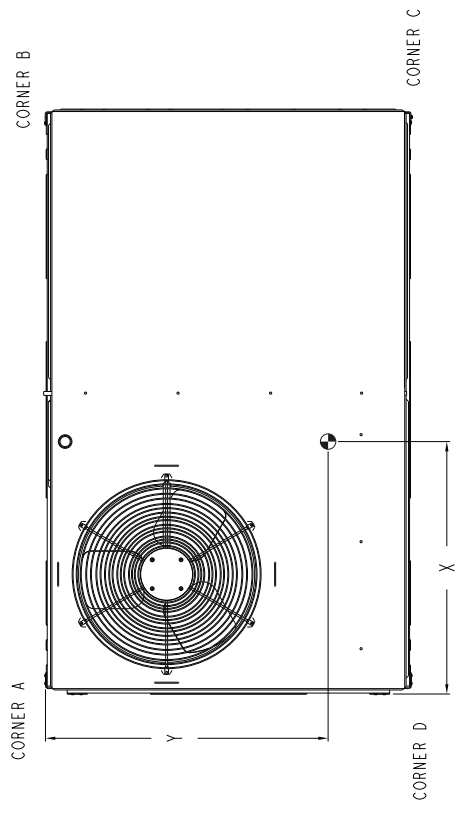
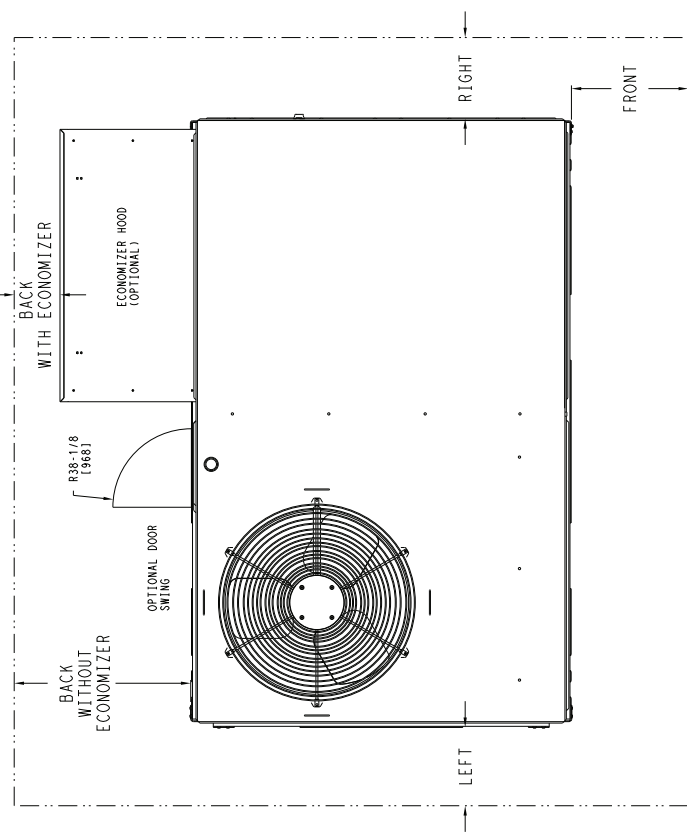
UNIT	CORNER WEIGHT*		CORNER WEIGHT (B)		CORNER WEIGHT (C)		CORNER WEIGHT (D)		C.G.			HEIGHT	
	LBS.	KG.	LBS.	KG.	LBS.	KG.	LBS.	KG.	X	Y	Z		
50FCQ*04	467	212	126	57	118	53	108	49	115	52	36 [914]	22 3/8 [568]	16 7/8 [410]
50FCQ*05	473	215	127	58	119	54	110	50	117	53	36 [914]	22 3/8 [568]	16 7/8 [410]
50FCQ*06	584	265	160	72	145	66	133	60	146	66	35 3/8 [898]	22 5/16 [557]	16 1/2 [413]
50FCQ*07	589	267	161	73	146	66	134	61	147	67	35 3/8 [898]	22 5/16 [557]	16 1/2 [413]

* 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		
	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 W/O ECON	48 [1219mm]	42 [1067mm]	18 [457mm]
BACK W/ECON	36 [914mm]	36 [914mm]	18 [457mm]
RIGHT	36 [914mm]	36 [914mm]	18 [457mm]
TOP	72 [1829mm]	72 [1829mm]	72 [1829mm]

ITC CLASSIFICATION	SHEET	DATE	REV
U.S. - ECCN: NSR	2 OF 3	08/15/19	-
SUPERGEDES			48TC003348
50FCQ 04-07 SINGLE PACKAGE HEAT PUMP			

Fig. 1 — 50FCQ*04-07 Dimensional Drawing (cont)

CERTIFIED DIMENSION PRINT

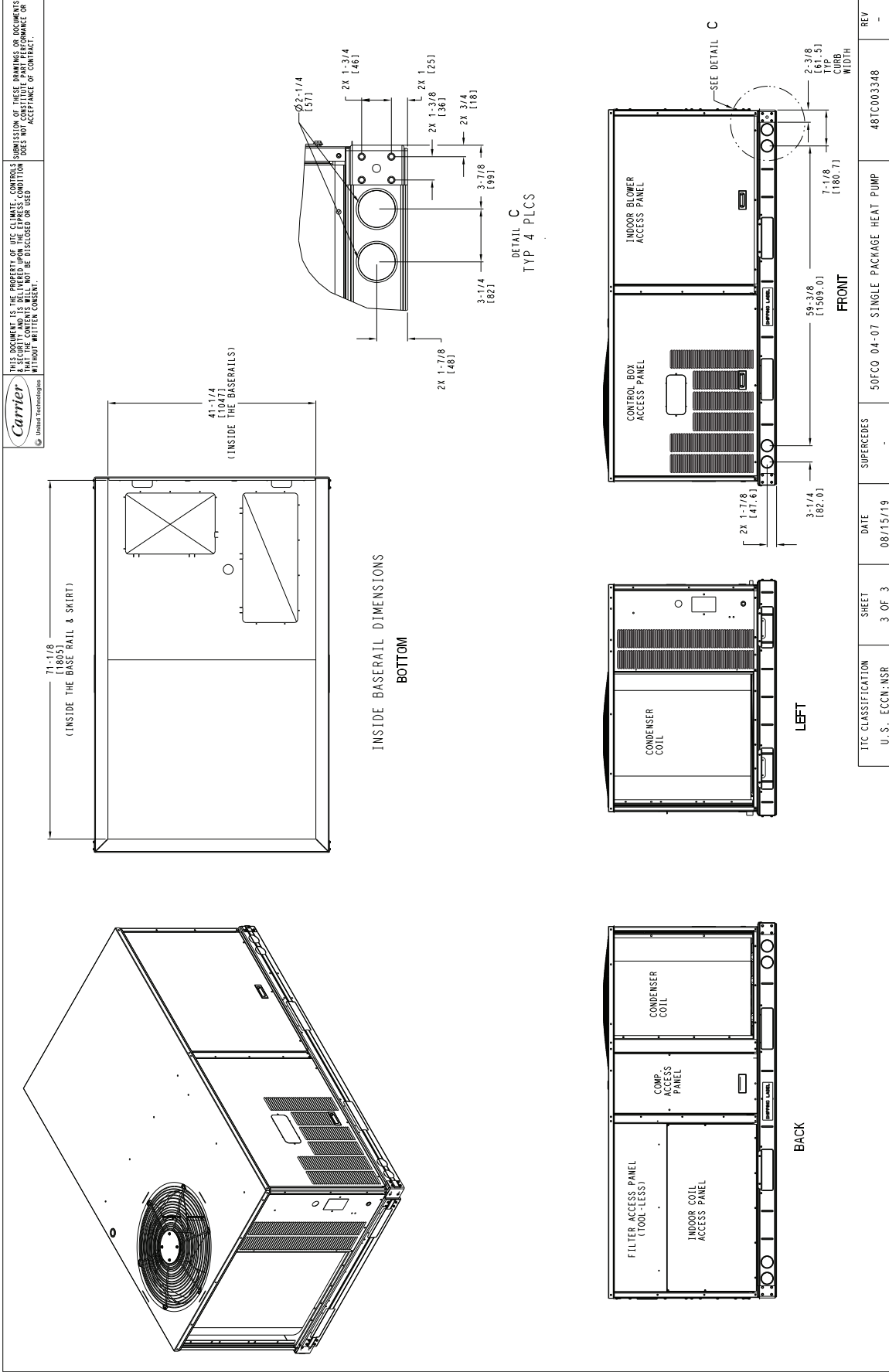


Fig. 1 — 50FCQ*04-07 Dimensional Drawing (cont)

ROOF CURB DETAILS

ROOF CURB ACCESSORY #	A	CONNECTOR PKG. ACC.	GAS CONNECTION TYPE	GAS FITTING	POWER WIRING FITTING	CONTROL WIRING FITTING	ACCESSORY CONVENIENCE OUTLET WIRING CONNECTOR
CRRFURB001A01	14" [356]	CRBTMPWR001A01	THRU THE CURB	3/4" [19] NPT	3/4" [19] NPT	1/2" [12.7] NPT	1/2" [12.7] NPT
CRRFURB002A01	24" [610]	CRBTMPWR003A01	THRU THE BOTTOM	1/2" [12.7] NPT			

- NOTES:
1. ROOF CURB 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. ROOF CURB: 18 GAGE STEEL.
 5. ROOF CURB: 18 GAGE STEEL. 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.

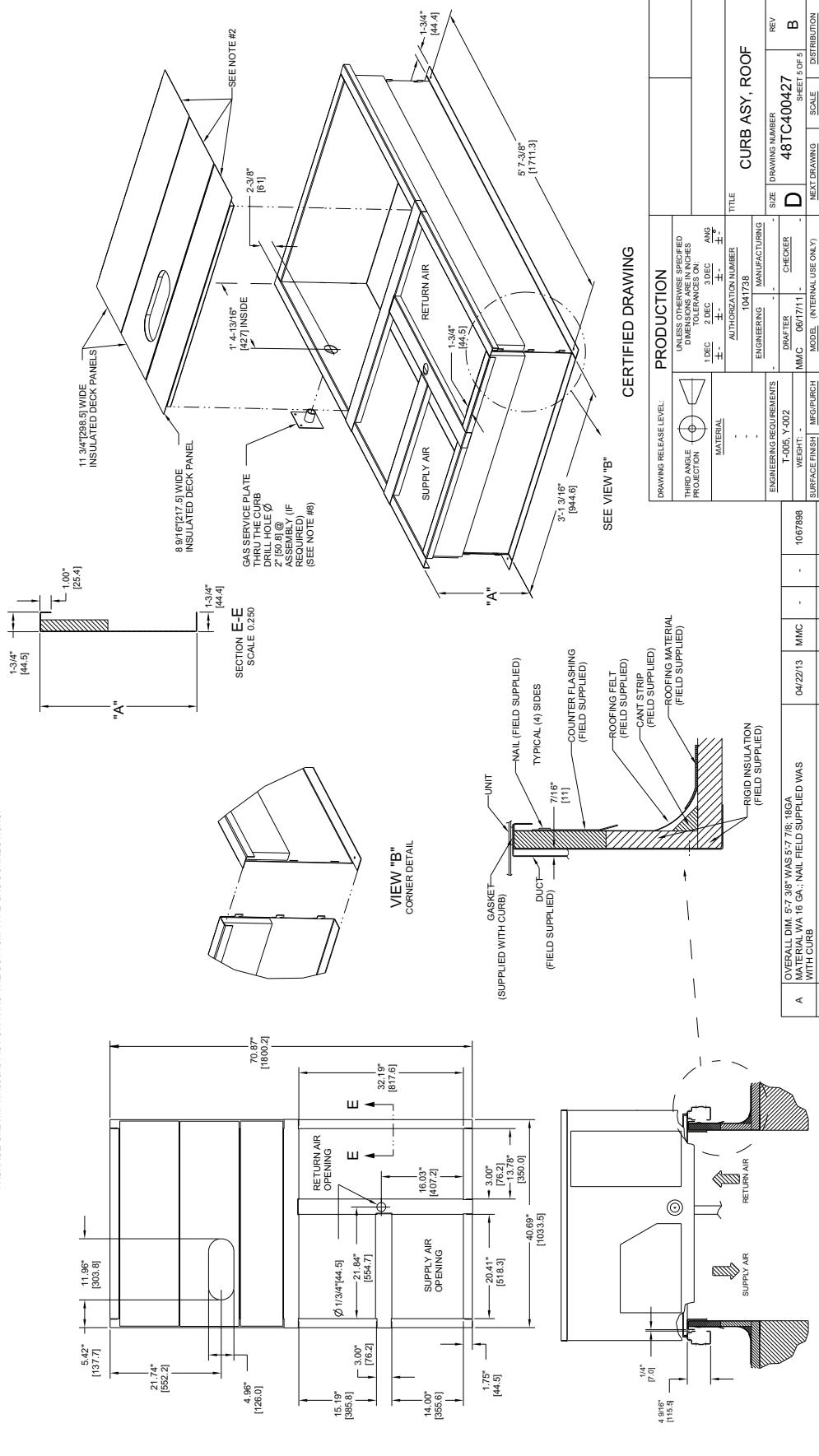


Fig. 2 — 50FCQ 04-07 Roof Curb Dimensions

