

48TC
Single Package Rooftop
Gas Heating/Electric Cooling Unit
Sizes 04 – 07 with Puron® (R-410A) Refrigerant



Turn to the Experts.™

Submittal Data

- **PERFORMANCE DATA**
- **CERTIFIED DIMENSION PRINTS**
- **CERTIFIED ROOF CURB
DIMENSION PRINTS**
- **SERVICE OPTION DIMENSION
PRINTS**



Job Data: _____ Location: _____
 Buyer: _____ Buyer P.O.# _____ Carrier: _____
 Unit Number: _____ Model Number: _____
 Unit Designation: _____
 Performance Data Certified By: _____



ARI Standard
210/240 UAC
Sizes 04–06



C US



ARI Standard
340/360
Size 07



This product has been designed and manufactured to meet Energy Star® criteria for energy efficiency. However, proper refrigerant charge and proper air flow are critical to achieve rated capacity and efficiency. Installation of this product should follow all manufacturer's refrigerant charging and air flow instructions. **Failure to confirm proper charge and air flow may reduce energy efficiency and shorten equipment life.**



DESCRIPTION

48TC units are high-efficiency, single-packaged electric cooling, gas heating units that are pre-wired and pre-charged with Puron® (R-410A) HFC refrigerant. The units are factory tested in both heating and cooling modes. These units meet the ASHRAE 90.1-2004 and Energy Star minimum efficiency levels.

STANDARD FEATURES

Base Unit

- Puron (R-410A) HFC refrigerant
- ARI certified 13 SEER efficiency levels
- Rated in accordance with ARI Standards 210 (04–06 sizes) and 360 (07size)
- Designed in accordance with Underwriters' Laboratories Std 1995 and listed by UL and UL, Canada
- Single-stage capacity control
- Non-corrosive composite sloping design; side or center drain condensate pan. Meets ASHRAE Standard 62
- Cooling operating range from 40°F up to 115°F
- Convertible from vertical to horizontal airflow for slab mounting
- Two-inch disposable return air filters
- Thru-the-bottom power and gas entry capability
- Single point gas and electric connections
- 24-volt control circuit protected with resettable circuit breaker
- Belt drive, constant torque, permanently lubricated evaporator-fan motor
- Totally enclosed condenser motors with permanently lubricated bearings
- Low-pressure, freeze protection, and high-pressure switches
- Full perimeter base rail with built-in rigging adapters and fork truck slots

Cabinet

- Access panels with easy grip handles and NO-STRIP screw devices
- 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
- Liquid line filter drier
- Scroll compressors with internal line-break overload protection
- Copper tube, aluminum fin coils with optional corrosion resistant coils
- Removable gauge line plugs for reading refrigerant pressure with unit panels in place

Gas Heat

- IGC solid-state gas heat exchanger control for on-board diagnostics, anti-cycle protection, LED error code designation, burner control logic and energy saving indoor fan motor delay
- Gas efficiencies up to 82%
- Induced draft combustion
- Redundant gas valve, with 2 stages of heating
- Flame roll-out safety protector
- Solid-state electronic direct spark ignition system

Standard Warranty

- 10-year heat exchanger
- 5-year compressor
- 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 _____ External Static Pressure _____ in.wg

Indoor Fan Motor Size _____ Hp

Exhaust Fan Motor Size _____ Hp

Curb Weight _____ lb

Heating

Heating Capacity:

Stage 1 _____ Btuh

Stage 2 _____ Btuh

Heating Capacity Total _____ Btuh

Stage 1 _____ kW

Stage 2 _____ kW

Heating Capacity Total _____ kW

48TC

ELECTRICAL DATA

Power Supply to Unit _____ Volts _____ Phase _____ Hz

Minimum Circuit Amps _____ Maximum Overcurrent Protection _____

SUBMITTAL DATA

Job Name _____

Architect _____

Engineer _____

Contractor _____

Unit Designation _____

OPTIONS AND ACCESSORIES

FACTORY-INSTALLED OPTIONS (FIOPs)

- ☐ Open protocol RTU Direct Digital Control (DDC).
LON, MODBUS, BACNET and Johnson N2 protocols.
- ☐ CCN Direct Digital Control (DDC)
- ☐ Through the base connectors for gas and electric conduit/piping
- ☐ Stainless steel gas heat exchanger (includes tubes, vestibule plate and collector box)
- ☐ Economizer
- ☐ Non-fused disconnect
- ☐ Powered convenience outlet
- ☐ Non-powered convenience outlet
- ☐ High static evaporator fan motor
- ☐ Return Air smoke detector
- ☐ Supply Air smoke detector
- ☐ CO₂ sensor
- ☐ 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

OPTIONAL WARRANTIES

- ☐ 15-year heat exchanger
- ☐ 10-year compressor
- ☐ 10-year parts

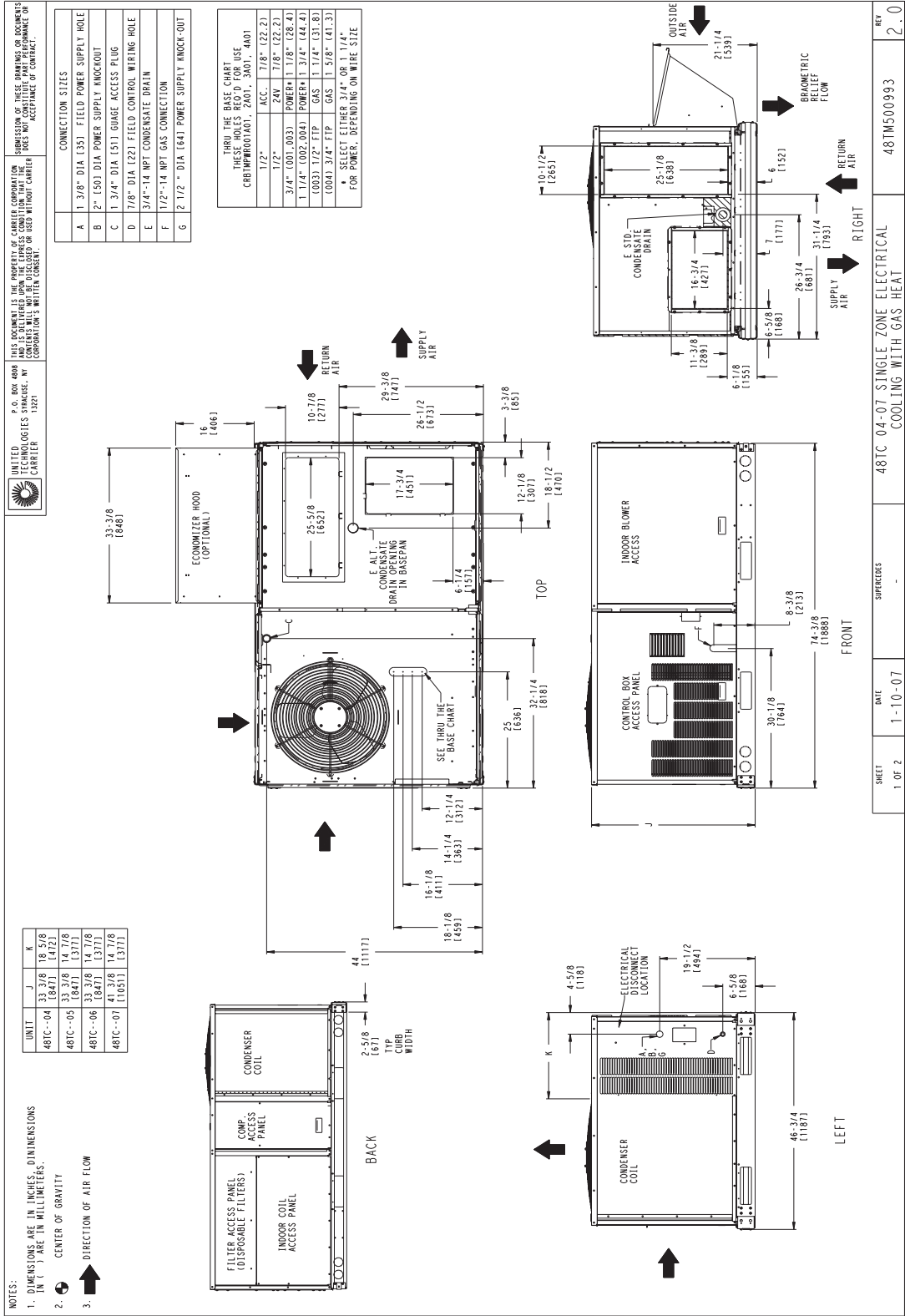
FIELD INSTALLED ACCESSORIES

- ☐ EconoMi\$er IV-electromechanical, gear driven with Belimo actuator (2-10v DC signal) and controller
- ☐ EconoMi\$er2-compatible with DDC controls; gear driven with Belimo actuator (4-20mA) signal and no controller
- ☐ Power exhaust
- ☐ Barometric relief
- ☐ Two-position motorized outside air damper
- ☐ Manual outside air damper
- ☐ Roofcurb - 14 inch tall
- ☐ Roofcurb - 24 inch tall
- ☐ Thru-the-bottom connections-electrical only
- ☐ Thru-the-bottom connections-electrical and gas
- ☐ Condenser coil grille
- ☐ Condenser hail guard - hood style
- ☐ Condenser hail guard - louvered style
- ☐ Flue discharge deflector
- ☐ Liquid propane (LP) conversion kit
- ☐ Phase monitor (loss of phase/phase reversal)
- ☐ Fan/Filter status switch
- ☐ Low ambient head pressure controller-down to 0°F
- ☐ Low ambient head pressure controller-down to -20°F
- ☐ Time Guard II compressor anti-cycle protection

Economizer Sensors

- ☐ Single Dry bulb control
- ☐ Differential Dry bulb control
- ☐ Single enthalpy control
- ☐ Differential enthalpy control
- ☐ CO₂ - wall mounted
- ☐ CO₂ - duct mounted

CERTIFIED DIMENSION 48TC04-07



48TC

CERTIFIED DIMENSION 48TC04-07



UNITED TECHNOLOGIES

CARRIER

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SYRACUSE, NY 13221

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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.	X	Y	Z		
48TC--04	483	219	111	50	125	57	131	59	116	53	39 [991]	23 [584]	16 3/8 [416]
48TC--05	537	244	124	56	139	63	145	66	129	59	39 [991]	23 [584]	17 [432]
48TC--06	569	258	131	59	147	67	154	70	137	62	39 [991]	23 [584]	17 1/4 [438]
48TC--07	632	298	150	68	169	76	176	80	157	71	39 [991]	23 [584]	20 1/8 [511]

CORNER A

CORNER B

CORNER C

CORNER D

Y

X

Z

TOP

BACK

SHEET 2 OF 2	DATE 1-10-07	SUPERSEES -	48TC 04-07 SINGLE ZONE ELECTRICAL COOLING WITH GAS HEAT	48TM500993	REV 2.0
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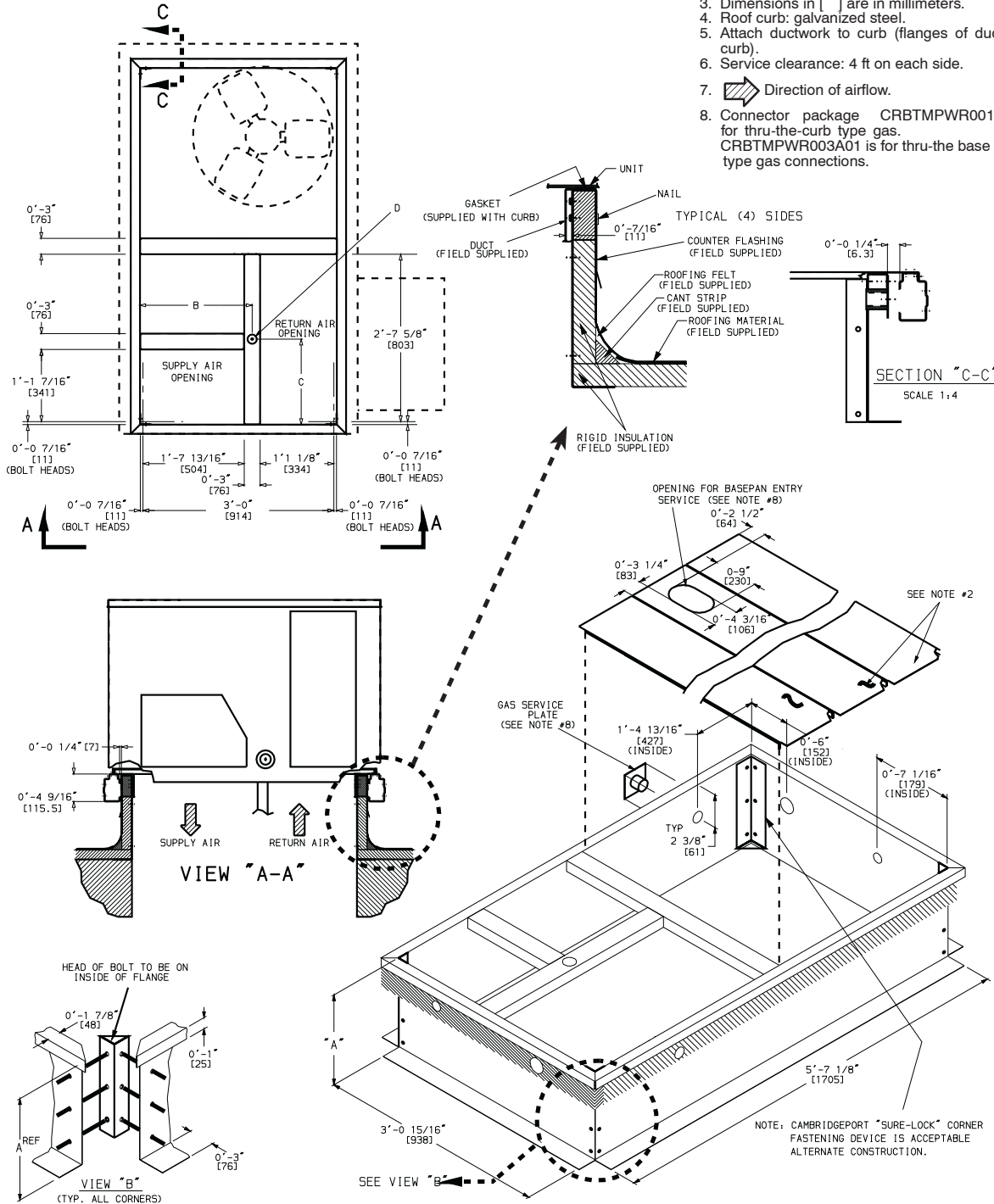
ROOF CURB DETAILS

CONNECTOR PKG. ACCY.	B	C	D ALT DRAIN HOLE	GAS	POWER	CONTROL	ACCESSORY POWER
CRBTMPWR001A01	1'-9 11/16" [551]	1'-4" [406]	1 3/4" [44.5]	3/4 [19] NPT	3/4 [19] NPT	1/2 [12.7] NPT	1/2 [12.7] NPT
CRBTMPWR003A01				1/2 [12.7] NPT	3/4 [19] NPT		

ROOF CURB ACCESSORY	A	UNIT SIZE
CRRFCURB001A01	1'-2" [356]	48TC A04-A07
CRRFCURB002A01	2'-0" [610]	

NOTES:

1. Roof curb accessory is shipped disassembled.
2. Insulated panels.
3. Dimensions in [] are in millimeters.
4. Roof curb: galvanized steel.
5. Attach ductwork to curb (flanges of duct rest on curb).
6. Service clearance: 4 ft on each side.
7.  Direction of airflow.
8. Connector package CRBTMPWR001A01 is for thru-the-curb type gas.
CRBTMPWR003A01 is for thru-the-base type gas connections.



48TC

C07503

