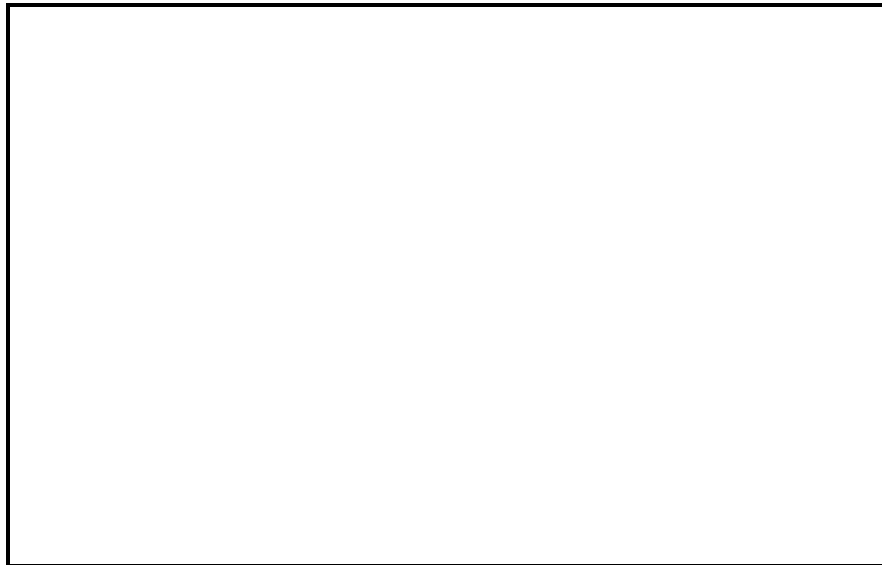


48LC WeatherExpert® Series
Ultra High Efficient
Single Package Rooftop and Single Zone VAV
Gas Heating/Electric Cooling Unit
Sizes 04 – 06 with Puron® (R-410A) Refrigerant



Submittal Data

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



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

DESCRIPTION

The 48LC are ultra high efficiency, single-packaged electric cooling, gas heating units that are pre-wired and pre-charged with environmentally sound Puron® (R-410A) HFC refrigerant. Units utilize 2 stage cooling capacity scroll compressor technology with optional Variable Frequency

Drive (VFD) indoor fan motor control or Direct Drive (multi speed/torque) ECM motor. Models with Carrier *ComfortLink* controls allows added unit diagnostics and operation set up capabilities as well as controlling logic for single zone variable air volume (SZ-VAV) applications.

STANDARD FEATURES

Base Unit

- Same unit footprint as Carrier models produced in the late 1980's. Ideal for replacement, tight spaces
- Puron (R-410A) HFC refrigerant
- SEER's: Up to 17.5 with Direct Drive ECM
Up to 16.4 with Belt Drive/VFD
- ASHRAE 90.1 compliant, Energy Star and CEE qualified
- Rated in accordance with AHRI Standards 210/240
- Designed in accordance with Underwriters' Laboratories Std 1995 and listed by UL and UL, Canada
- 2 stage cooling capacity scroll compressor technology
- Belt drive evaporator-fan motor and pulley system with Variable Frequency Drive (VFD) controller or Direct Drive (multi speed/torque) ECM (Electronically Commutated Motor) motor
- High efficient Electronically Commutated Motor (ECM) - outdoor fan motor
- Non-corrosive composite sloping design; side or center drain condensate pan. Meets ASHRAE Standard 62
- Ambient cooling operating from 0°F (-18°C) to 125°F (52°C) with ComfortLink and from 10°F (-12°C) to 125°F (52°C) with electrical mechanical controls.
- Field convertible from vertical to horizontal airflow for slab mounting — No special kits required
- 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
- Permanently lubricated evaporator-fan motor
- Totally enclosed condenser motors with permanently lubricated bearings
- Low-pressure and high-pressure switch protection
- Full perimeter base rail with built-in rigging adapters and fork truck slots
- Sound levels as low as 76 dB

- Central terminal board facilitating simple safety circuit troubleshooting and simplified control box arrangement

Cabinet

- Cleanable foil-faced insulation throughout cabinet
- Innovative, easy starting, no-strip screw feature on unit access panels
- Access panels with easy grip handles and tool-less filter access door
- Pre-painted exterior panels and primer-coated interior panels tested to 500 hours salt spray protection

Refrigerant System

- TXV refrigerant metering device with removable power element
- High capacity liquid line filter drier
- 2 stage cooling capacity scroll compressors with crankcase heater
- High performance internally enhanced 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

- Exclusive 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
- Low NOx models that meet California Air Quality Management NOx requirement of 40 nanograms/joule or less. Low NOx models include stainless steel heat exchangers
- Gas efficiencies up to 82%
- Inducted draft gas heat combustion
- Redundant gas valves with up to two stages of heating
- Flame roll-out safety protector
- Solid-state electronic direct spark ignition system
- Alumagrad™ coated Turbo-tubular™ heat exchangers

STANDARD FEATURES (cont.)

Standard Limited Parts Warranty

- 15-year gas heat exchanger parts - Stainless Steel
- 10-year gas heat exchanger parts - Aluminized
- 5-year compressor parts
- 3-year *ComfortLink* control
- 1-year parts

COMFORTLINK CONTROLS - FEATURES

Features with optional *ComfortLink* controls:

- Communications (via stand-alone thermostat or sensor)
- Scrolling Marquee display
- Time schedule
- Reverse rotation protection for compressors
- Space temperature sensor capacity
- Service diagnostics, alarms, and alarm history
- Service run test capability
- Unit run time and compressor cycles history
- CO₂ sensor capability
- 3V™ (VVT®) Zoning Linkage

PERFORMANCE DATA

Unit Operating Weight _____ lb

Curb 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

Exhaust Fan Motor Size _____ Hp

Heating

Total Heating Capacity:

INPUT

Stage 1 _____ Btuh

Stage 2 _____ Btuh

OUTPUT

Stage 1 _____ kW

Stage 2 _____ kW

Thermal Efficiency Stage _____ %

ELECTRICAL DATA

Power Supply to Unit _____ Volts _____ Phase _____ Hz

Minimum Circuit Amps _____ Maximum Overcurrent Protection _____

SUBMITTAL DATA

Job Name _____

Architect _____

Engineer _____

Contractor _____

Unit Designation _____



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.

Certified to ISO 9001

OPTIONS AND ACCESSORIES

FACTORY-INSTALLED OPTIONS (FIOPs)

- ☐ Through the base connectors for gas and electric conduit/piping
- ☐ Stainless steel gas heat exchanger (includes tubes, vestibule plate and collector box)
- ☐ Direct Drive (multi speed/torque) ECM indoor fan motor
- OR
- ☐ Belt Drive Indoor Fan motor with Variable Frequency Drive (VFD) controller
- ☐ Standard Economizer with dry bulb sensing and barometric relief
- ☐ Standard Economizer with enthalpy sensing and barometric relief
- ☐ Ultra Low Leak economizer with maximum leakage rate equal or less than 4.0 cfm/sq. ft. at 1.0 in. w.g.
- ☐ Non-fused disconnect
- ☐ HACR Breaker
- ☐ Powered 115-volt convenience outlet
- ☐ Non-powered 115-volt convenience outlet (except 575v)
- ☐ Return Air smoke detector
- ☐ Supply Air smoke detector
- ☐ CO₂ sensor
- ☐ Condenser hail guard - louvered style
- ☐ Special coating protection for evaporator and condenser coils
- ☐ RTU Open multi protocol controller communicates to LON, MODBUS, BACNET and Johnson N2 protocols. Available with electrical mechanical controls only
- ☐ ComfortLink control system with standard cooling operation down to 0°F (-18°C)
- OR
- ☐ Electrical Mechanical controls standard cooling operation down to 10°F (-12°C)
- ☐ Hinged access panels

FIELD INSTALLED ACCESSORIES

- ☐ EconoMiSer™ X – Ultra Low Leak electromechanical, gear driven with Honeywell W7220 digital controller.
- ☐ EconoMiSer™ 2-compatible with DDC controls; gear driven with Belimo actuator (4-20mA) signal and no controller
- ☐ Power exhaust - prop fan design
- ☐ Roofcurb - 14 inch (356mm) tall
- ☐ Roofcurb - 24 inch (610mm) tall
- ☐ Thru-the-bottom connections-electrical only
- ☐ Thru-the-bottom connections-electrical and gas
- ☐ Condenser hail guard - louvered style
- ☐ Flue shield
- ☐ Flue discharge deflector
- ☐ Liquid propane (LP) conversion kit
- ☐ High altitude conversion kit
- ☐ Phase monitor (loss of phase/phase reversal)
- ☐ Time Guard II compressor anti-cycle protection
- ☐ Thermostats and Sensors

Economizer Sensors

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

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* price pages for further information.

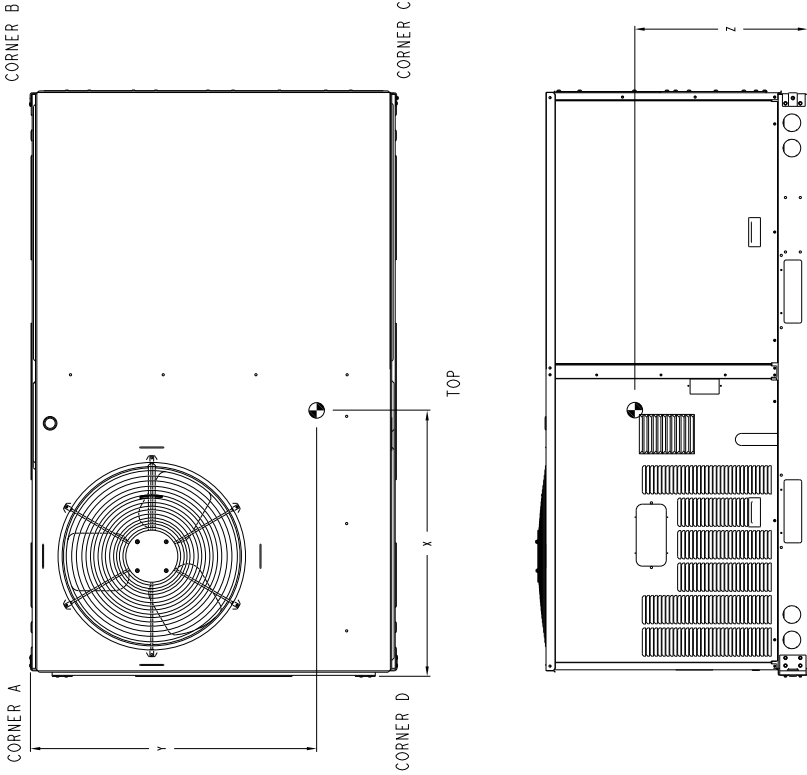
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CERTIFIED DIMENSION 48LC04-06

UNIT	STD. UNIT		CORNER WEIGHT (A)		CORNER WEIGHT (B)		CORNER WEIGHT (C)		CORNER WEIGHT (D)		C.G.			HEIGHT
	KG.	LB.	KG.	LB.	KG.	LB.	KG.	LB.	KG.	LB.	X	Y	Z	
481C-004	505	229	124	56	117	53	128	58	136	62	36 1/8 (918)	24 3/8 (619)	19 (483)	
481C-005	290	268	151	69	144	65	144	65	151	69	35 1/4 (917)	23 3/4 (594)	20 1/8 (511)	
481C-006	300	271	156	71	145	66	144	65	155	70	36 7/8 (918)	23 1/4 (591)	19 1/2 (485)	

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



FRONT

SHEET	DATE	SUPERSEDES	REV
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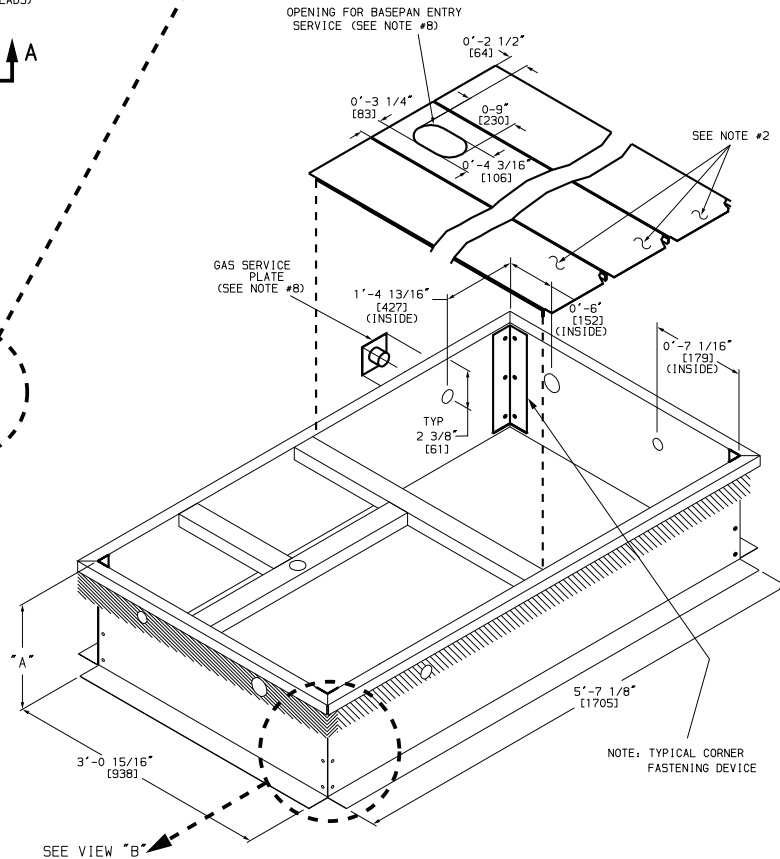
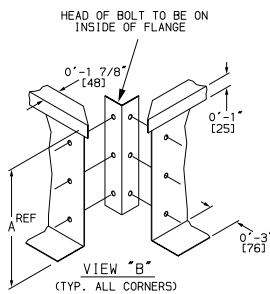
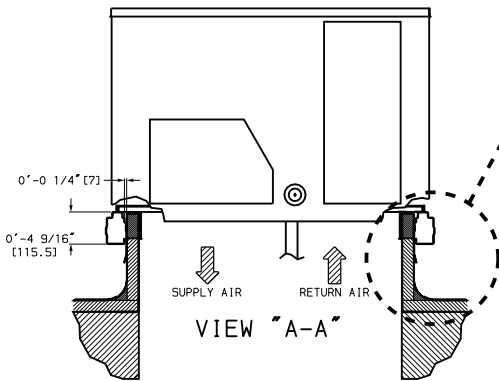
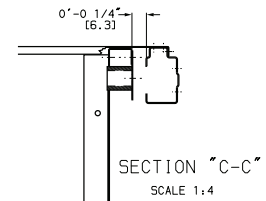
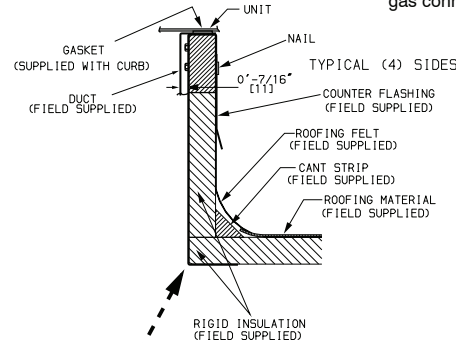
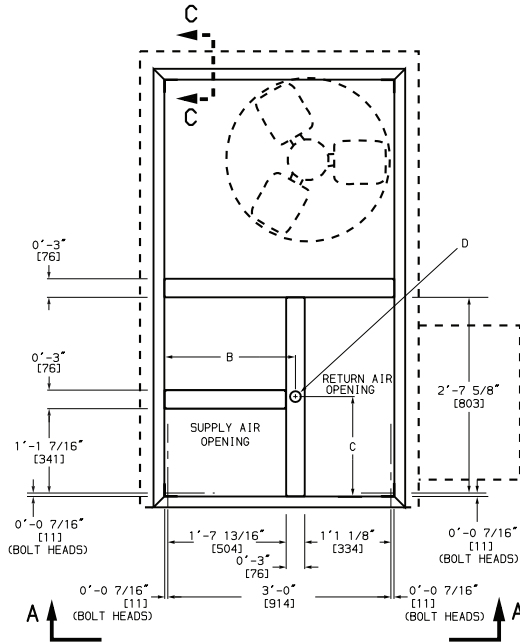
ROOF CURB DETAILS

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			

ROOFCURB ACCESSORY	A	UNIT SIZE
CRRFCURB001A01	1'-2" [356]	48LC**04-06
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.



48LC

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