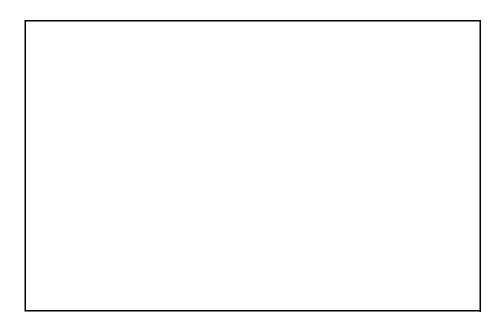


# 48LC WEATHEREXPERT® SERIES ULTRA HIGH EFFICIENT SINGLE PACKAGE ROOFTOP AND SINGLE ZONE VAV GAS HEATING/ELECTRIC COOLING UNIT SIZES 04-06 WITH PURON® (R-410A) REFRIGERANT

- 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

The 48LC are ultra high efficiency, single-packaged electric cooling, gas heating units that are pre-wired and pre-charged with Puron® (R-410A) HFC refrigerant. Units utilize 2 stage cooling capacity scroll compressor technology with Direct Drive (multi speed/torque) ECM motor.

### **FEATURES**

### Standard Base Unit

- Same unit footprint as Carrier models produced in the late 1980's; ideal for replacement, tight spaces
- Puron (R-410A) HFC refrigerant
- SEERs up to 17.5 with Direct Drive ECM
- ASHRAE 90.1 energy compliant and Energy Star qualified
- Meets or exceeds CEE criteria
- Rated in accordance with AHRI Standards 210/240
- Designed in accordance with Underwriters' Laboratories Std 1995
- Listed by UL and UL-Canada
- 2 stage cooling capacity scroll compressor technology
- Belt drive evaporator-fan motor and pulley system with 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 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**

- Precision sized TXV refrigerant metering system
- 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 nangrams/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<sup>1</sup> coated Turbo-tubular<sup>TM</sup> heat exchangers

## **Standard Limited Parts Warranty**

- 15-year gas heat exchanger parts Stainless Steel
- 10-year gas heat exchanger parts Aluminized
- 5-year compressor parts
- 1-year parts
- 1. Alumagrand is a trademark of Alco Products, LLC

	J	PERFORM <i>A</i>	ANCE DATA	
Unit Operating Weight		lb	<b>HEATING (GAS)</b>	
Curb Weight		lb	Total Heating Capacity:	
<b>COOLING</b>			INPUT	
Gross Total Capacity		Btuh	Stage 1	
at Condenser Air Temperatur			Stage 2	
Gross Sensible Capacity		Btuh	OUTPUT	
Compressor Power Input			Stage 1	
Indoor Entering: db	°F / wb	°F	Stage 2	
Airflow CFM External S	tatic Pressure	in. wg	Thermal Efficiency State _	· · · · · · · · · · · · · · · · · · ·
Indoor Fan Motor Size		HP		
Exhaust Fan Motor Size		HP		
Phase Maximum Circuit Amps				
Maximum Overcurrent Protection				
			AL DATA	
(	Contractor			



Unit Designation\_







Btuh Btuh

kW kW

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.

RTU Open multi-protocol controller communicates to Lon-Works <sup>1</sup> , Modbus <sup>2</sup> , BACnet <sup>3</sup> and Johnson N2 protocols.	Economizer with ENTHALPY sensing and barometri relief.
Available with electrical mechanical controls only	ULTRA LOW LEAK Air Dampers —
Electrical Mechanical controls standard cooling operation down to 10°F (–12°C)	O Models with W7220 controller that meets California T tle 24 (section 120.2) Fault Detection and Diagnosti
Patented Humidi-MiZer® adaptive dehumidification system. Available with direct drive or belt drive indoor fan motors.	(FDD) requirements, has return, outside air and relie damper leakage that meets Title 24 (section 140.4 an ASHRAE 90.1) requirements — plus 5 year limite
☐ Economizer with DRY BULB sensing and barometric	parts warranty. EconoMi\$er X.
relief. Standard Air Leak Dampers — O Models with W7220 controller that meets California Ti-	O Models with RTU Open controller that meets Californi Title 24 (section 120.2) Fault Detection and Diagnosti (FDD) requirements, has return, outside air and relic
tle 24 (section 120.2) Fault Detection and Diagnostic (FDD) requirements. EconoMi\$er X.	damper leakage that meets Title 24 (section 140.4 an ASHRAE 90.1) requirements — plus 5 year limite parts warranty. EconoMi\$er 2.
O Models with RTU Open controller that meets California Title 24 (section 120.2) Fault Detection and Diagnostic (FDD) requirements. EconoMi\$er 2.	Through the base connectors for gas and electric conduiting piping
Economizer with ENTHALPY sensing and barometric relief.	<ul><li>Stainless steel gas heat exchanger (includes tubes, vestibul plate and collector box)</li></ul>
Standard Air Leak Dampers —	☐ Direct Drive (multi speed/torque) ECM indoor fan motor ☐ Non-fused disconnect
O Models with W7220 controller that meets California Ti- tle 24 (section 120.2) Fault Detection and Diagnostic	HACR Breaker
(FDD) requirements. EconoMi\$er X.  O Models with RTU Open controller that meets California	Powered 115-volt convenience outlet Non-powered 115-volt convenience outlet (except 575 v)
Title 24 (section 120.2) Fault Detection and Diagnostic	Return Air smoke detector
(FDD) requirements. EconoMi\$er 2.  Beconomizer with DRY BULB sensing and barometric	Supply Air smoke detector
relief.	☐ CO <sub>2</sub> sensor ☐ Condenser hail guard — louvered style
ULTRA LOW LEAK Air Dampers — O Models with W7220 controller that meets California Ti-	Special coating protection for evaporator and condense
tle 24 (section 120.2) Fault Detection and Diagnostic (FDD) requirements, has return, outside air and relief	coils  Hinged access panels
damper leakage that meets Title 24 (section 140.4 and ASHRAE 90.1) requirements — plus 5 year limited	OPTIONAL WARRANTIES
parts warranty. EconoMi\$er X.  O Models with RTU Open controller that meets California	Complete Unit Parts only up to 5 years
Title 24 (section 120.2) Fault Detection and Diagnostic (FDD) requirements, has return, outside air and relief	Complete Unit Parts and Labor up to 5 years  Many other optional warranties are available.
damper leakage that meets Title 24 (section 140.4 and ASHRAE 90.1) requirements — plus 5 year limited parts warranty. EconoMi\$er 2.	See the Commercial Start-Up and Optional Extende Warranty Price price pages for further information.

# FIELD-INSTALLED ACCESSORIES Economizer with DRY BULB sensing and barometric **Economizer** with ENTHALPY sensing and barometric relief. Standard Air Leak Dampers — ULTRA LOW LEAK Air Dampers -Models with W7220 controller that meets California Ti-O Models with W7220 controller that meets California Title 24 (section 120.2) Fault Detection and Diagnostic tle 24 (section 120.2) Fault Detection and Diagnostic (FDD) requirements. EconoMi\$er X. (FDD) requirements, has return, outside air and relief damper leakage that meets Title 24 (section 140.4 and O Models with RTU Open controller that meets California Title 24 (section 120.2) Fault Detection and Diagnostic ASĤRAE 90.1) requirements. EconoMi\$er X. O Models with RTU Open controller that meets California (FDD) requirements. EconoMi\$er 2. Title 24 (section 120.2) Fault Detection and Diagnostic **Economizer** with ENTHALPY sensing and barometric (FDD) requirements, has return, outside air and relief relief. damper leakage that meets Title 24 (section 140.4 and Standard Air Leak Dampers — ASHRAE 90.1) requirements. EconoMi\$er 2. O Models with W7220 controller that meets California Ti-Power exhaust — prop fan design tle 24 (section 120.2) Fault Detection and Diagnostic Roofcurb — 14 inch (356mm) tall (FDD) requirements. EconoMi\$er X. Roofcurb — 24 inch (610mm) tall Models with RTU Open controller that meets California Title 24 (section 120.2) Fault Detection and Diagnostic Thru-the-bottom connections — electrical only (FDD) requirements. EconoMi\$er 2. Thru-the-bottom connections — electrical and gas ☐ Economizer with DRY BULB sensing and barometric Condenser hail guard — louvered style Flue shield ULTRA LOW LEAK Air Dampers — Flue discharge deflector O Models with W7220 controller that meets California Ti-Liquid propane (LP) conversion kit tle 24 (section 120.2) Fault Detection and Diagnostic High altitude conversion kit (FDD) requirements, has return, outside air and relief damper leakage that meets Title 24 (section 140.4 and Phase monitor (loss of phase/phase reversal) ASHRAE 90.1) requirements. EconoMi\$er X. Time Guard II compressor anti-cycle protection O Models with RTU Open controller that meets California ☐ Thermostats and Sensors Title 24 (section 120.2) Fault Detection and Diagnostic **Economizer Sensors** (FDD) requirements, has return, outside air and relief damper leakage that meets Title 24 (section 140.4 and Single Dry bulb control ASHRAE 90.1) requirements. EconoMi\$er 2. Differential Dry bulb control Single enthalpy control Differential enthalpy control CO<sub>2</sub> — wall mounted CO<sub>2</sub> — duct mounted CO<sub>2</sub> — unit mounted

