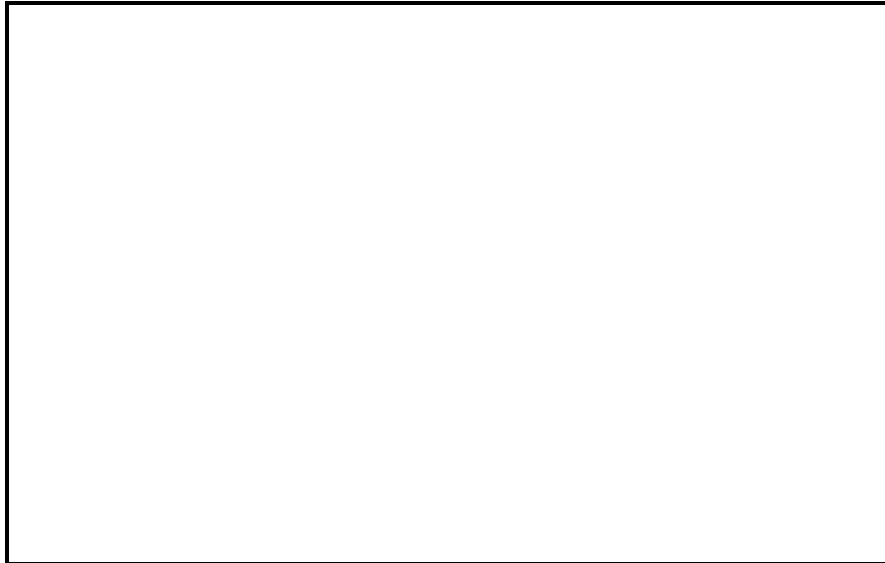


50LC WeatherExpert™ Series
Ultra High Efficient
Single Package Rooftop and Single Zone VAV
Cooling Only, with Optional Electric Heat
Sizes 14 – 26 with Puron® (R-410A) Refrigerant



Advanced Submittal Data

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



Advanced product data, subject to change without notice.

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

DESCRIPTION

50LC units are ultra high-efficiency, single-packaged electric cooling, with optional electric heating units. Units utilize three stages of cooling capacity control with matching indoor fan motor speed control. All models are available with belt drive indoor fan motors with Variable Frequency Drive (VFD) speed controller and Direct Drive - ECM

outdoor fan motors. Models use DDC electrical controls with Carrier's Comfort Control Logic.

All units are factory tested in both heating and cooling modes, and rated in accordance with AHRI Standards 340/360

STANDARD FEATURES

Base Unit

- Puron (R-410A) HFC refrigerant
- IEER's up to 19.3 with EER's up to 12.6
- ASHRAE 90.1 compliant and Energy Star qualified
- Meets or exceeds CEE tier II levels
- Rated in accordance with AHRI Standards 340/360
- Designed in accordance with Underwriters' Laboratories Std 1995
- Listed by ETL
- 3-stage cooling capacity control with crankcase heaters
- Belt drive indoor fan and pulley system with Variable Frequency Drive (VFD) controller
- High efficient ECM outdoor fan motor
- Exclusive non-corrosive composite condensate pan in accordance with ASHRAE 62 Standard, sloping design; side or center drain
- Standard ambient cooling operation down to 40°F (4°C) with lower operation with integrated economizer. All units operate up to 125°F (52°C)
- Dedicated vertical and horizontal airflow models available ordered as factory option. No special kits required.
- Proven Tandem Scroll compressors with internal line-break overload protection
- Single refrigerant circuit design with full face activated evaporator coil
- Two-inch disposable return air filters on slide out track. Four inch track available as field installed accessory.
- Provisions for thru-the-bottom power entry capability as standard
- Single point 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 86 dB
- New terminal board facilitating simple safety circuit troubleshooting and simplified control box arrangement

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
- Fully insulated cabinet with foil faced insulation

Refrigerant System

- Precision sized TXV refrigerant metering device
- High capacity liquid line filter drier
- High performance internally enhanced copper tube, aluminum fin coils with optional corrosion resistant coils

Standard Limited Parts Warranty

- 5-year compressor parts
- 5-year electric heater
- 1-year parts

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 (Electric)

Total Heating Capacity:

INPUT

Stage 1 _____ Btuh

Stage 2 _____ Btuh

OUTPUT

Stage 1 _____ kW

Stage 2 _____ kW

Thermal Efficiency State _____ %

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

50LC

OPTIONS AND ACCESSORIES

FACTORY-INSTALLED OPTIONS (FIOPs)

- ☐ EconoMi\$er™ X – Ultra Low Leak electromechanical, gear driven with Honeywell W7220 digital controller.
- ☐ Electric Heaters
- ☐ Non-fused disconnect
- ☐ HACR Breaker
- ☐ Powered 115-volt convenience outlet
- ☐ Non-powered 115-volt convenience outlet
- ☐ Return Air smoke detector
- ☐ Supply Air smoke detector
- ☐ CO₂ sensor
- ☐ Condenser hail guard - louvered style
- ☐ Special coating protection for evaporator and condenser coils
- ☐ Hinged access panels

OPTIONAL EXTENDED 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.

FIELD INSTALLED ACCESSORIES

- ☐ EconoMi\$er™ X – Ultra Low Leak electromechanical, gear driven with Honeywell W7220 digital controller.
- ☐ Display Kit for Variable Frequency Drive (VFD).
Allows additional set up and diagnostics of the VFD controller. Kit includes display, cable, and mounting bracket. Kit can be used on size 07 thru 26 LC units with VFD.
- ☐ Electric Heaters
- ☐ Power exhaust - prop fan design
- ☐ Roofcurb - 14 inch (356mm) tall
- ☐ Roofcurb - 24 inch (610mm) tall
- ☐ Adapter Curb (available for sizes 14-20 only)
- ☐ Barometric Relief Hood for Horizontal Economizer applications
- ☐ Condenser hail guard - louvered style
- ☐ Phase monitor (loss of phase/phase reversal)
- ☐ Time Guard II compressor anti-cycle protection
- ☐ 4-Inch Filter Track upgrade kit
- ☐ 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

50LC





CERTIFIED DIMENSION 50LC14

UNIT		STD UNIT WEIGHT (A) LBS. KG.		CORNER WEIGHT (B) LBS. KG.		CORNER WEIGHT (C) LBS. KG.		CORNER WEIGHT (D) LBS. KG.		C.G.		Y		Z									
50LC14		1754 797.3		425.8 193.5		495.3 225.2		447.9 203.6		384.9 175.0		X		Y		Z							
												40 29/32		11039.021		68 21/32		11743.871		16 1/2		1419.11	

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

CORNER A

CORNER B

CORNER C

CORNER D

TOP

X

Y

Z

CORNER A

CORNER B

CORNER C

CORNER D

FRONT

X

Y

Z

UNITED TECHNOLOGIES SYRACUSE, NY 13221		P.O. BOX 4888		THIS DOCUMENT IS THE PROPERTY OF CARRIER CORPORATION AND IS DELIVERED UPON THE EXPRESS CONDITION THAT THE USER AGREES TO HOLD CARRIER CORPORATION'S WRITTEN CONSENT.		SUBMISSION OF THESE DRAWINGS OR DOCUMENTS DOES NOT CONSTITUTE PART PERFORMANCE OR ACCEPTANCE OF CONTRACT.	
CORNER A		CORNER B		CORNER C		CORNER D	

50LC 14 SINGLE ZONE ELECTRICAL COOLING WITH ELECTRIC HEAT		50LC500664		REV -	
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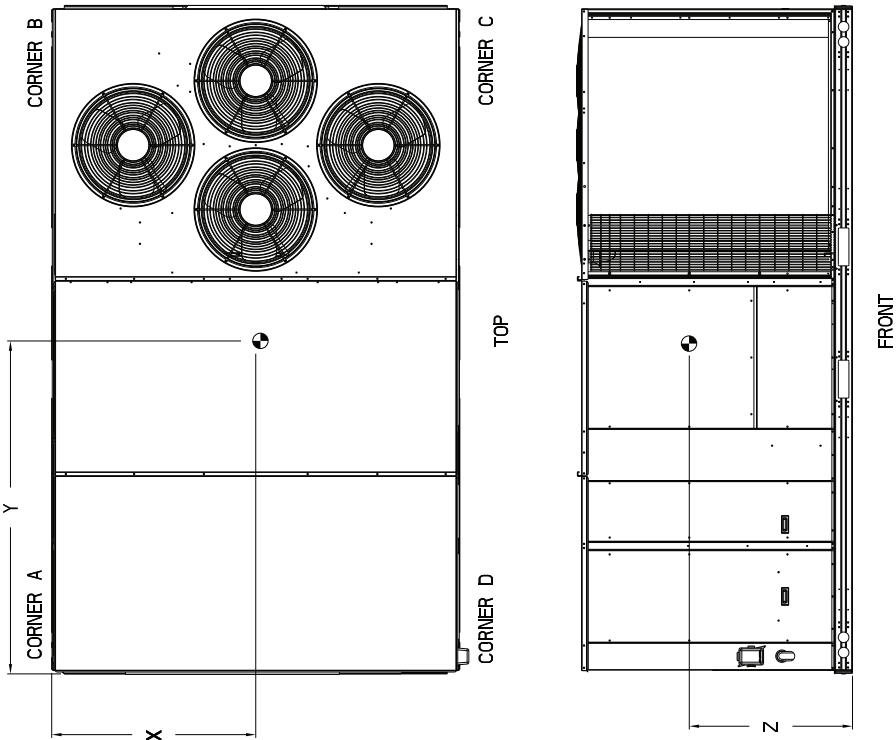
50LC



CERTIFIED DIMENSION 50LC17, 20

UNIT	STD UNIT		CORNER		CORNER		CORNER		C.G.			
	LBS.	KG.	LBS.	KG.	WEIGHT (A)	WEIGHT (B)	WEIGHT (C)	WEIGHT (D)	X	Y	Z	
50LC17	1966	907.3	510.2	231.9	487.5	221.6	479.8	216.1	442.2	187.3	38 1/2 (1977.90)	76 (1930.40)
50LC20	1902	955.7	537.4	244.3	625.6	284.4	595.4	229.7	434.1	197.3	38 1/2 (1977.90)	76 (1930.40)

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

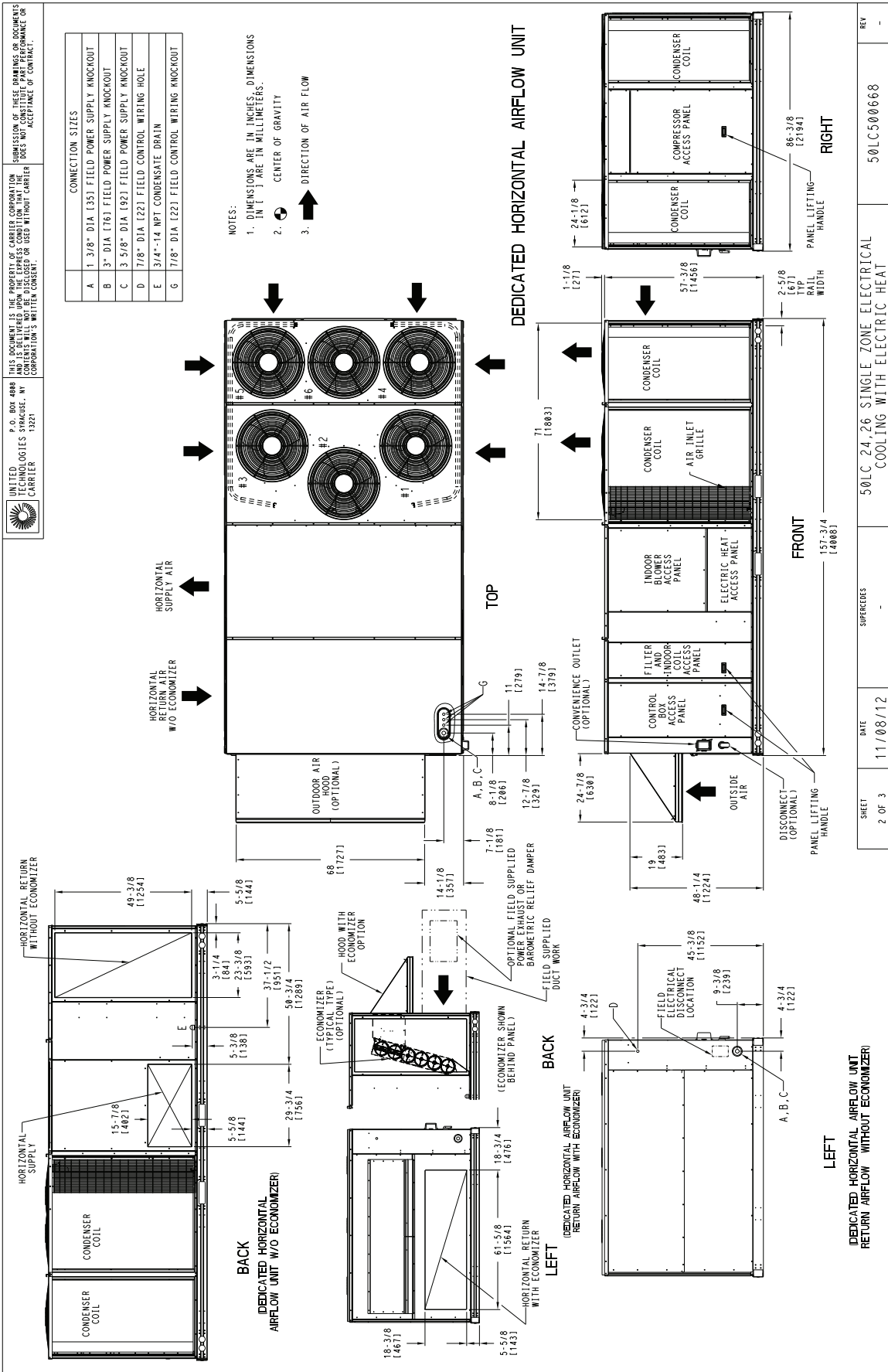


SHEET	DATE	SUPERCSES	REV
3 OF 3	11/07/12	-	50LC500666

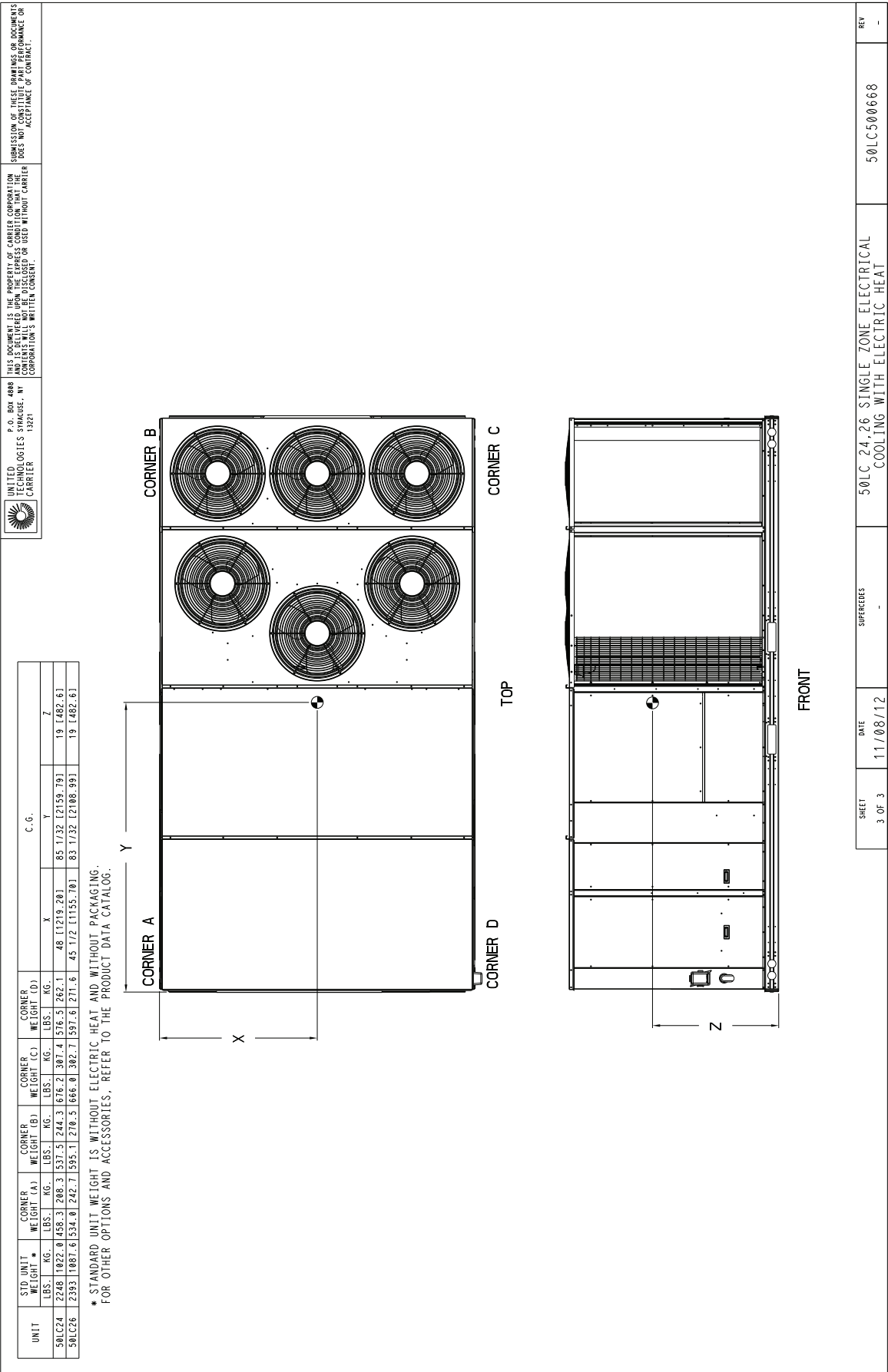
50LC



CERTIFIED DIMENSION 50LC24, 26

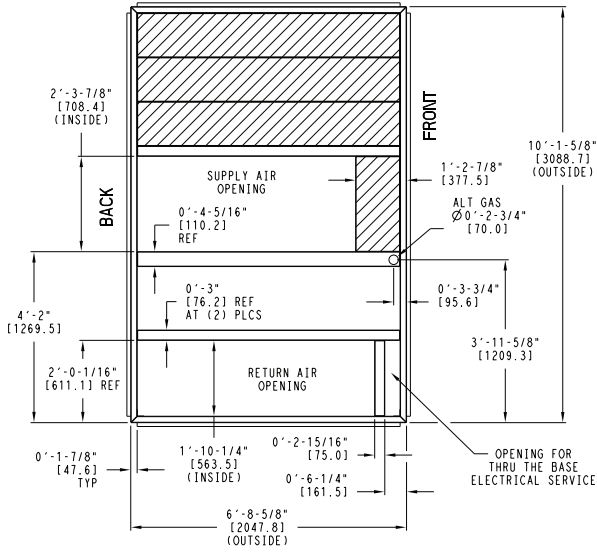


CERTIFIED DIMENSION 50LC24, 26



ROOF CURB DETAILS—SIZE 14 UNITS

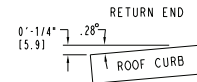
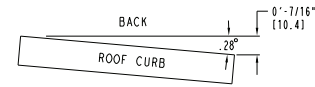
UNIT SIZE	"A"	ROOF CURB ACCESSORY
14	1'-2" [356.0] 2'-0" [610.0]	CRRFCURB045A00 CRRFCURB046A00



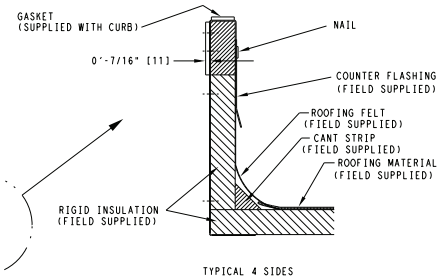
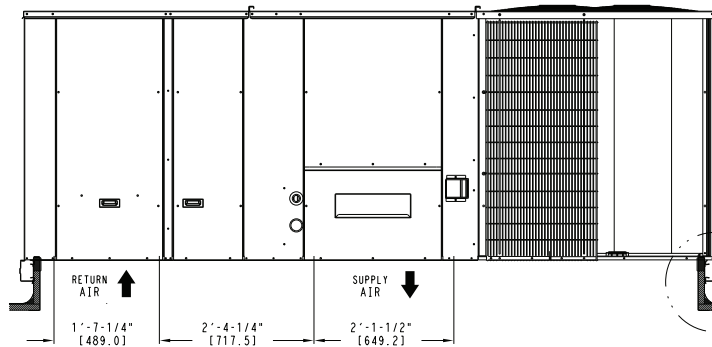
NOTES:

- 1 ROOF CURB ACCESSORY IS SHIPPED UNASSEMBLED.
- 2 DIMENSIONS IN [] ARE IN MILLIMETERS.
- 3 ROOF CURB GALVANIZED STEEL.
- 4 ATTACH DUCTWORK TO CURB (FLANGES ON DUCT REST ON CURB)
- 5 SERVICE CLEARANCE 4 FT ON EACH SIDE

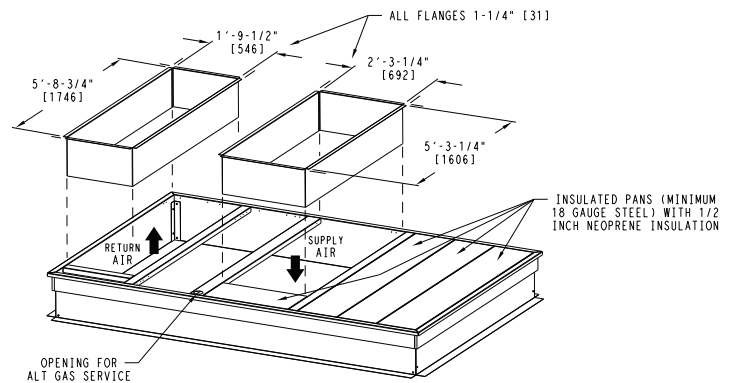
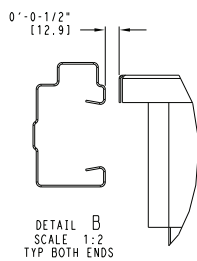
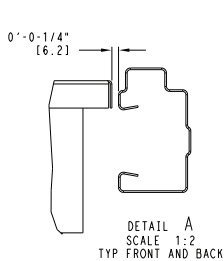
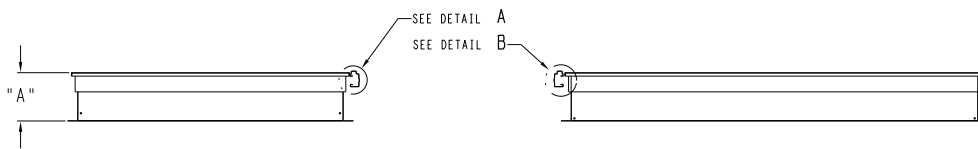
➡ DIRECTION OF AIR FLOW



MAX CURB LEVELING TOLERANCES



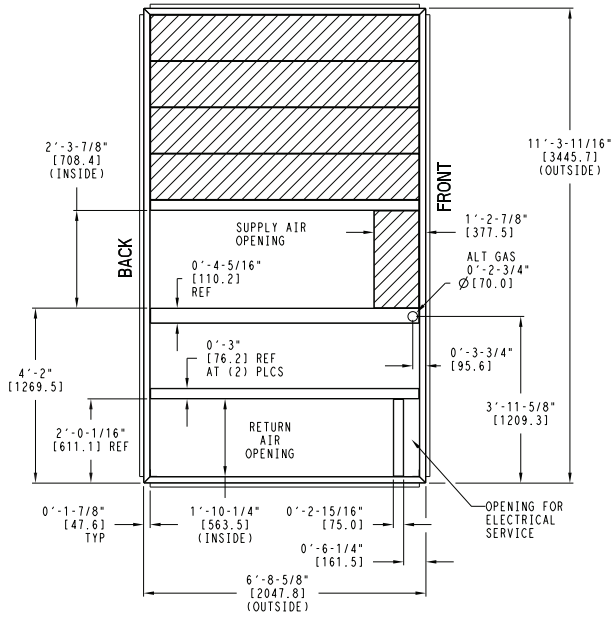
TYPICAL 4 SIDES



C13054

ROOF CURB DETAILS—SIZE 17, 20 UNITS

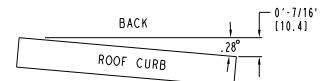
UNIT SIZE	"A"	ROOF CURB ACCESSORY
17, 20	1'-2" [356.0] 2'-0" [610.0]	CRRFCURB047A00 CRRFCURB048A00



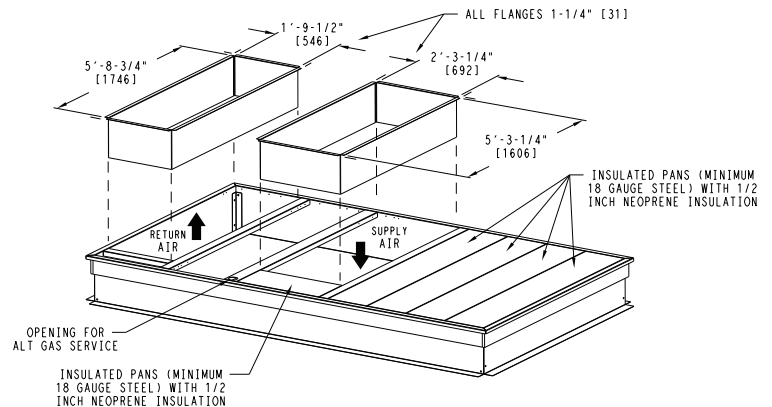
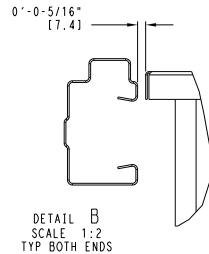
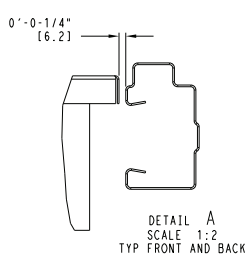
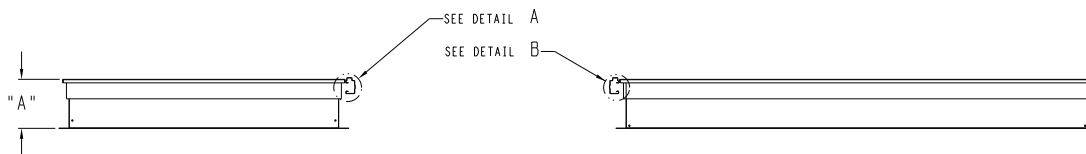
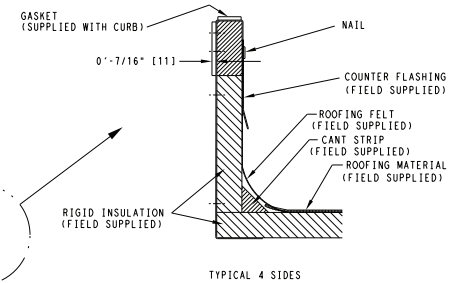
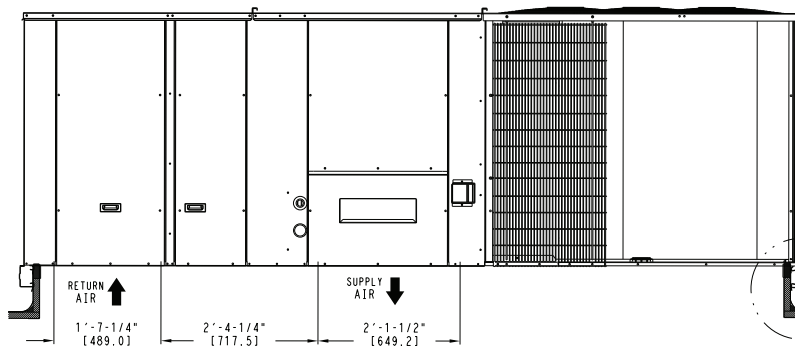
NOTES:

- 1 ROOF CURB ACCESSORY IS SHIPPED UNASSEMBLED.
- 2 DIMENSIONS IN () ARE IN MILLIMETERS.
- 3 ROOF CURB GALVANIZED STEEL.
- 4 ATTACH DUCTWORK TO CURB (FLANGES ON DUCT REST ON CURB)
- 5 SERVICE CLEARANCE 4 FT ON EACH SIDE

➔ DIRECTION OF AIR FLOW



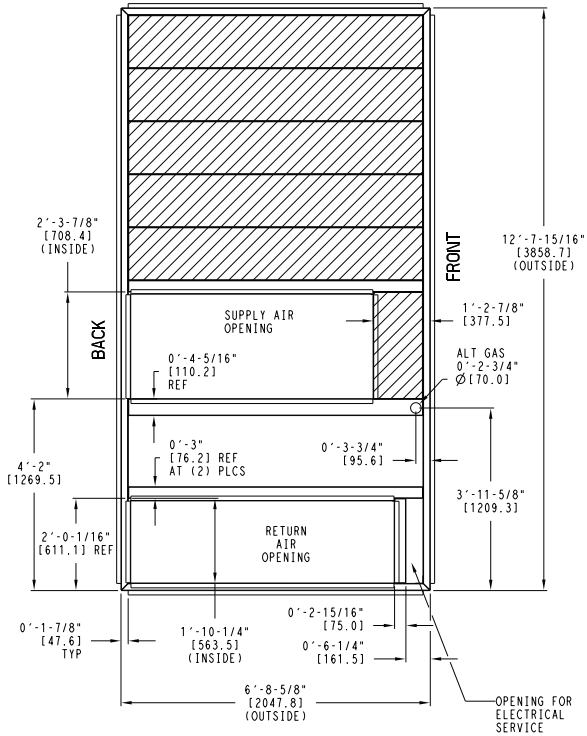
MAX CURB LEVELING TOLERANCES



C13055

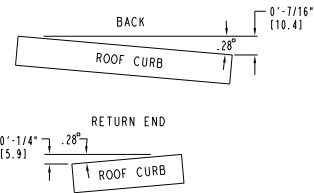
ROOF CURB DETAILS—SIZE 24, 26 UNITS

UNIT SIZE	"A"	ROOF CURB ACCESSORY
24, 26	1'-2" [356.0] 2'-0" [610.0]	CRRFCURB049A00 CRRFCURB050A00

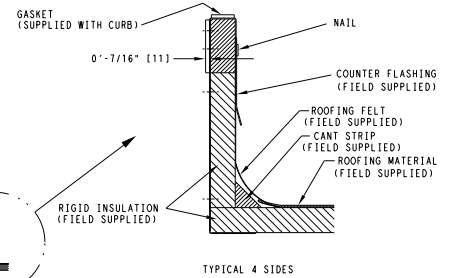
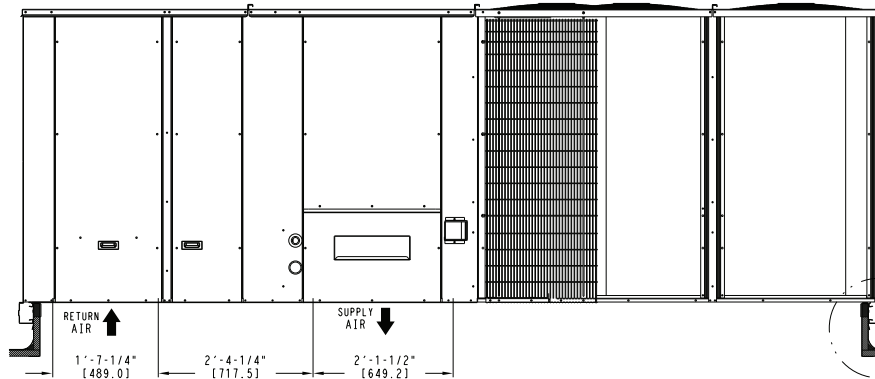


- NOTES:
- 1 ROOF CURB ACCESSORY IS SHIPPED UNASSEMBLED.
 - 2 BOLT HEADS TO BE ON INSIDE OF FLANGE. CLEARANCE IS [11] 0'-0-7/16" TYP ALL CORNERS.
 - 3 DIMENSIONS IN [] ARE IN MILLIMETERS.
 - 4 ROOF CURB GALVANIZED STEEL.
 - 5 ATTACH DUCTWORK TO CURB (FLANGES ON DUCT REST ON CURB)
 - 6 SERVICE CLEARANCE 4 FT ON EACH SIDE
 - 7 GAS SERVICE PLATE IS PART OF A SEPARATELY SHIPPED ACCESSORY PACKAGE.
 - 8 GAS SERVICE PLATE CAN BE USED WITH EITHER ACCESSORY ROOFCURB.

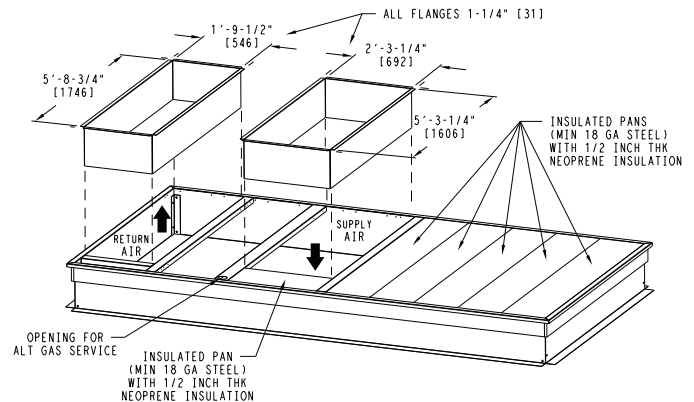
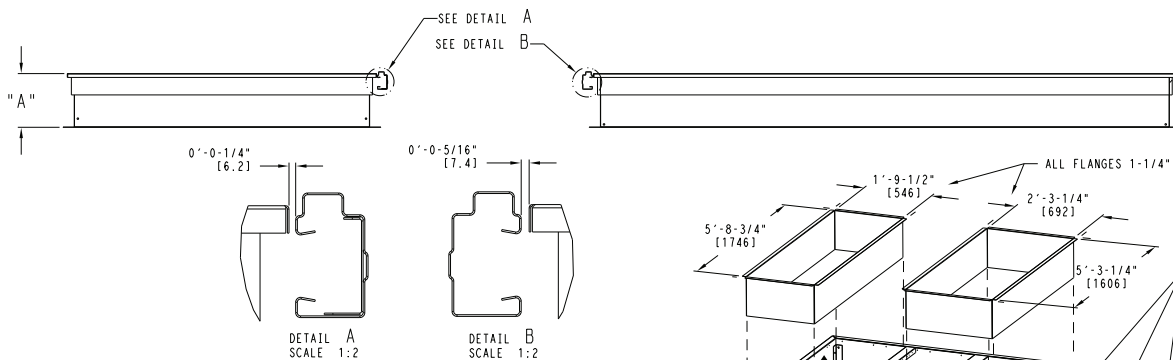
➔ DIRECTION OF AIR FLOW



MAX CURB LEVELING TOLERANCES



TYPICAL 4 SIDES



C13056