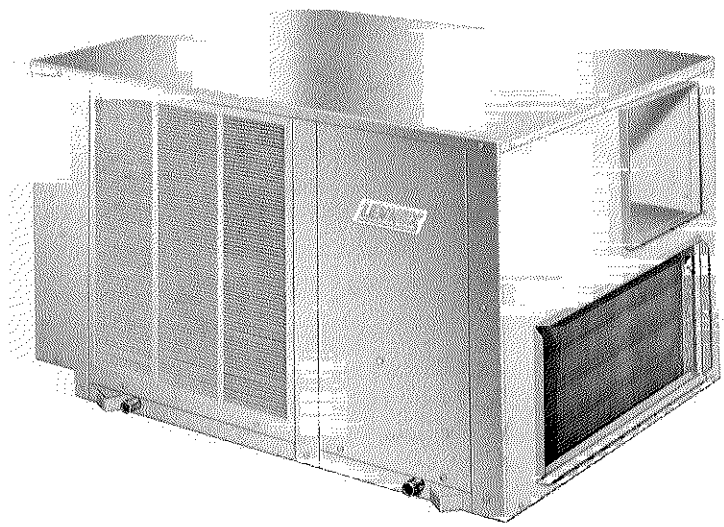
CHA4-261—HORIZONTAL SINGLE PACKAGE AIR CONDITIONER

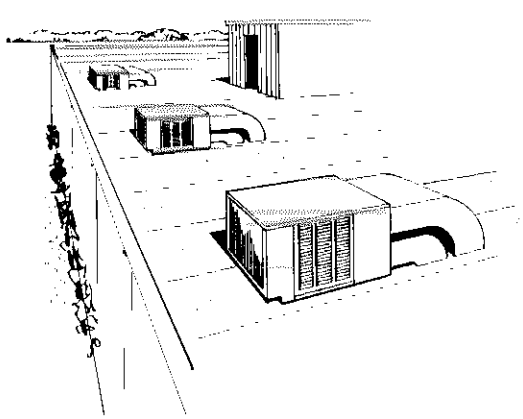
- Factory Assembled, Piped And Wired
- Minimum Installation Cost
- Saves Interior Floor Space
- Economical To Operate
- Weather Resistant Cabinet
- Complete Service Access
- Precharged Refrigeration System
- Quiet And Efficient Blower & Fan
- Low Cost Field Wiring
- Auxiliary Electric Heat Available



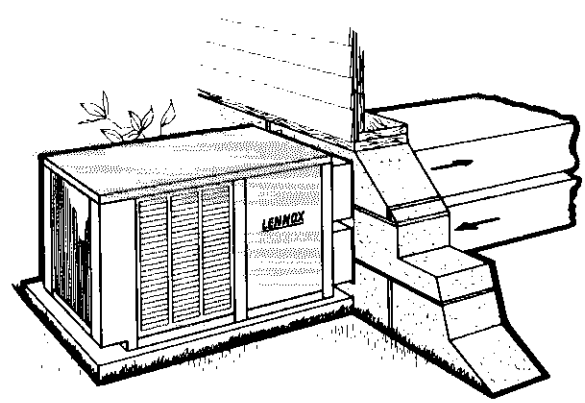
A Complete, Expertly Designed Air Conditioning System In One Package

Lennox CHA4-261 units are primarily designed for installation in residential and small business or commercial establishments. However, multiple units can be installed to satisfy requirements of larger buildings. They can be installed through a wall in a utility room, attic or crawl space. Installation on a slab at grade level or on a roof top will save valuable interior floor space. A complete air conditioning system (evaporator and condenser unit) is furnished in one compact unit. Evaporator supply and return air openings are both at the same end of the cabinet. Condenser air outlet is at the opposite end. Condenser air enters unit through the louvered panels at the sides and is discharged through coil in the end of unit. See air pattern sketch. Cabinet is heavy gauge galvanized steel with an all weather enamel finish. All components are located in unit for easy service access. Units are shipped completely assembled, piped, pre-wired and pre-charged ready to install. In addition they are test operated at the factory before shipment insuring continuity of controls and wiring.

Typical Applications



Rooftop installation



Unit on slab at grade level

NOTE—Specifications, ratings and dimensions subject to change without notice.

FEATURES

Rugged Cabinet—Heavy gauge galvanized hot dipped steel cabinet panels. A five station wash metal preparation assures a perfect bonding surface for the finish coat of baked-on outdoor acrylic enamel. Large removable panels provide complete service access to interior of cabinet. Completely assembled unit is easily hoisted to rooftop level by hoisting lugs provided in the cabinet base.

Thick Interior Insulation—All of the interior of panels in the evaporator section are lined with thick fiberglass insulation. This results in quiet and efficient operation due to the excellent acoustical and insulating qualities of fiberglass.

Duct Connections—Evaporator supply and return air openings are located one above the other on one end of the cabinet. Return air is taken in the lower opening through the evaporator coil, turned 180° and discharged out upper opening. Flanged duct connections are provided.

Refrigeration System—Complete factory sealed refrigeration system consists of compressor, condenser coil and fan, evaporator coil and blower, accumulator-drier, refrigerant lines connected and a full operating charge of refrigerant.

Dependable Compressor—Rugged and reliable compressor is suction cooled and overload protected. The entire running gear assembly is spring mounted within the sealed can. In addition the compressor is installed in the unit on resilient rubber mounts assuring quiet and vibration free operation.

Extra Large Coils—Lennox designed and fabricated coils (condenser and evaporator) are constructed of ripple-edged aluminum fins machine flat fitted to seamless copper tubes for maximum strength and excellent heat transfer. Each joint is silver soldered resulting in leak proof construction. Coils are pressure leak tested at 450 to 500 psi. A condenser coil guard (8-6-3994B) is optional equipment and must be ordered extra.

Drain Pan—Rugged, heavy gauge construction with galvanized pipe drain connections stubbed to outside of cabinet. See dimension drawing for location. Pan is treated to resist corrosion.

Efficient Condenser Fan—Direct drive axial flow fan moves large air volumes through the entire condenser coil resulting in high refrigerant cooling capacity. Air enters unit through louvered panels on both sides of unit and is discharged out through the coil. See air pattern drawing.

Powerful Evaporator Blower—Direct drive blower delivers large air volumes with low power consumption. Blower is statically and dynamically balanced as an assembly before it is installed in the unit. Motor is resiliently mounted. Equipped with transformer speed controller giving a choice of three blower speeds. Factory wired for medium speed, blower speed change is easily obtained by simple wiring change.

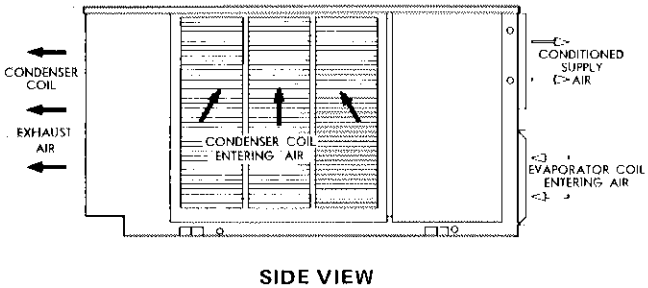
Accessible Control Box—Large control box is conveniently located for easy service access. All controls factory installed and wired.

Thermostat (Optional)—Due to the many types of applications possible a thermostat is not furnished as standard, it must be ordered extra. For cooling only applications a single stage cooling thermostat is required. When optional electric heat is ordered a heating-cooling thermostat is required.

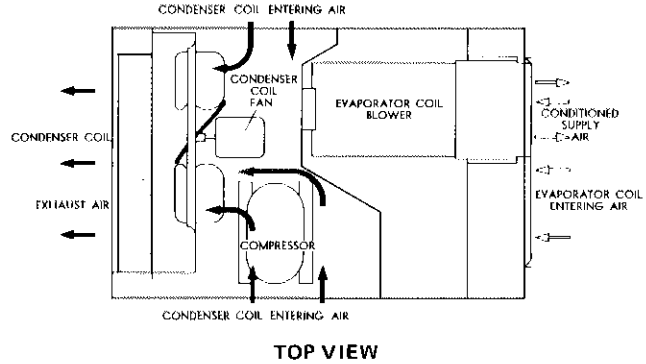
Auxiliary Electric Heat—Lennox designed and built ED5 Series electric duct heaters are available for All-Season applications and reheat for humidity control. They are practical and easy to install. See Engineering Data bulletins on these heaters in section Heating Units—Electric for complete data.

Thoroughly Tested and Approved—Unit has been thoroughly tested in the Lennox environmental test room and accurately rated according to ARI standard conditions. In addition unit has been sound tested in the Lennox reverberant sound test room and rated according to ARI standard conditions. Units coming within the scope of this standard (135,000 Btuh or less) carry the ARI certification seal. Unit is U.L. Listed and listed by CSA as certified.

AIR PATTERN



SIDE VIEW



TOP VIEW

SPECIFICATIONS

Model No.		CHA4-261
*Cooling Capacity ARI Certified	Total capacity Btuh	25,000
	Total Unit watts	3800
	Dehumidifying capacity	33%
Refrigerant (R-22) charge		4 lbs. 13 oz.
Condenser Coil	Net face area (sq. ft.)	3.20
	Tube diameter (in.)	1/2
	Number of rows of tubes	4
	Fins per inch	13
Condenser Fan	Diameter (in.) and No. of blades	16–4
	Air volume (factory setting)	1500
	Rpm (factory setting)	1108
	Motor horsepower	1/6
	Motor watts (factory setting)	230
Evaporator Coil	Net face area (sq. ft.)	1.91
	Tube diameter (in.)	1/2
	Number of rows of tubes	4
	Fins per inch	10
Evaporator Blower	Wheel nominal diameter x width (in.)	9 x 7
	Motor horsepower	1/6
Condensate drain size mpt (in.)		3/4
Net weight (lbs.) (1 package)		290

*Rated in accordance with ARI Standard 210; 450 cfm evaporator air volume per ton of cooling capacity, 95F outdoor air temperature and 80db/67wb entering evaporator air.

ELECTRICAL DATA

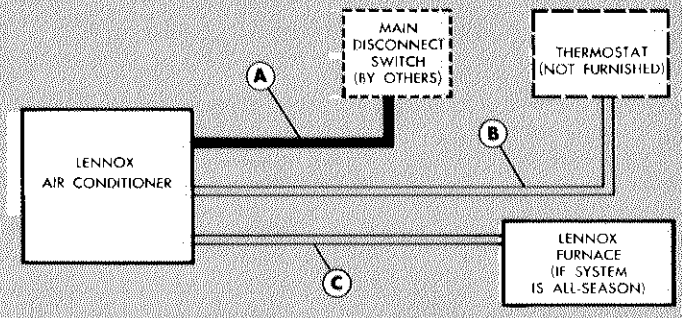
Model No.		CHA4-261
Line voltage data		208/230v 60 Hz–1 phase
Compressor	Full load amps	16.0
	Power factor	.92
	Locked rotor amps	66.0
Condenser Coil Fan	Full load amps	1.4
	Locked rotor amps	2.9
Evaporator Coil Blower	Full load amps	1.9
	Locked rotor amps	4.2
Maximum unit amps		19.3
AWG wire size	1' to 100' run	10
	101' to 20' run	8
Time delay fuse, fusetron (amps)		30
Maximum allowable fuse (amps)		35
Disconnect ratings (hp)		5

NOTE–If other than time delay fuses are used the next larger amp rating may be required.

NOTE–All fuses, disconnect and wiring must conform to NEC and local codes. Wire sizes are according to NEC for copper conductors.

NOTE–Extremes of operating range are plus 10% and minus 5% of line voltage.

FIELD WIRING



A–Two wire power (See Electrical Data table for wire size)

B–Three wire low voltage–18 ga. min. (cooling only installations)
Four wire low voltage–18 ga. min. (all-season installations)

C–Two wire low voltage–18 ga. min. (all-season installations)

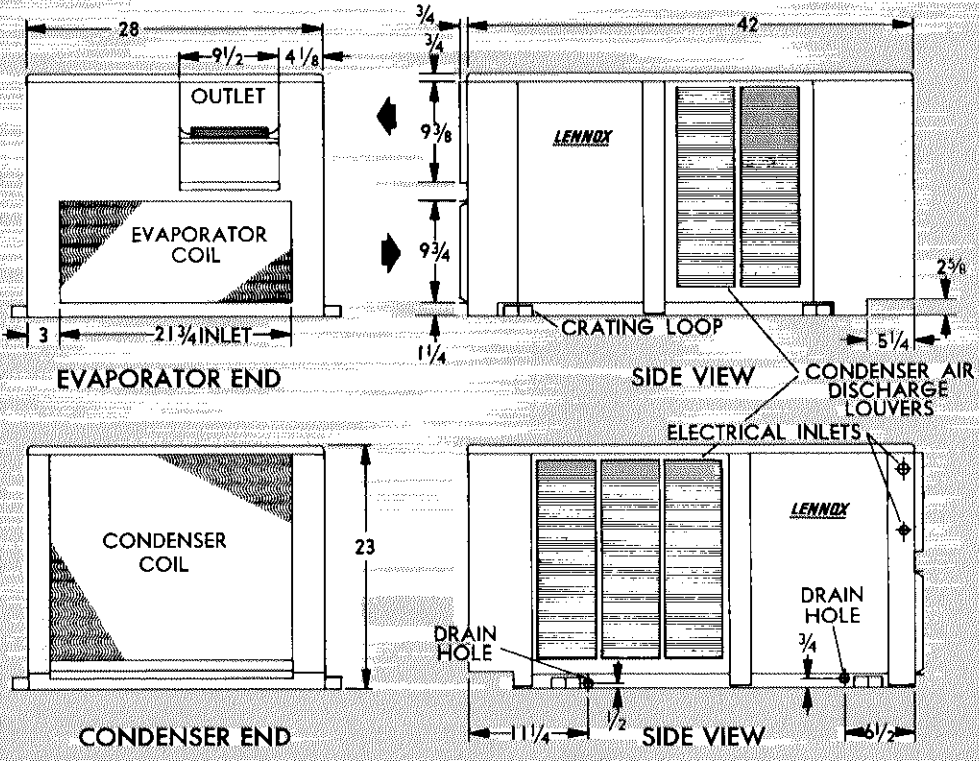
All wiring must conform to NEC and local electrical codes.

If local electrical code permits, may be class 2 wiring.

RATINGS

Evaporator Air 80F Dry Bulb		Outdoor Air Temperature Entering Condenser											
		85			95			105			115		
Entering Wet Bulb (F)	Total Air Volume (Cfm)	Total Cooling Capacity (Btuh)	Sensible To Total Ratio (S/T)	Comp. Motor Watts Input	Total Cooling Capacity (Btuh)	Sensible To Total Ratio (S/T)	Comp. Motor Watts Input	Total Cooling Capacity (Btuh)	Sensible To Total Ratio (S/T)	Comp. Motor Watts Input	Total Cooling Capacity (Btuh)	Sensible To Total Ratio (S/T)	Comp. Motor Watts Input
64	800	25,300	.81	3000	23,600	.83	3210	21,400	.86	3400	18,600	.89	3580
	900	25,700	.82	3040	24,000	.85	3240	21,800	.87	3430	19,000	.91	3620
	1000	26,200	.84	3070	24,400	.87	3280	22,300	.89	3490	19,300	.92	3670
67	800	26,500	.64	2940	24,800	.65	3230	22,600	.68	3430	19,500	.72	3620
	900	27,000	.65	2990	25,300	.67	3280	23,000	.70	3450	20,000	.74	3670
	1000	27,300	.66	3040	25,600	.69	3320	23,400	.73	3580	20,400	.75	3720
70	800	27,500	.53	3010	25,700	.55	3260	23,500	.56	3490	20,600	.58	3780
	900	27,800	.54	3040	26,000	.56	3300	23,800	.58	3530	21,000	.60	3820
	1000	28,100	.56	3080	26,300	.57	3330	24,100	.59	3590	21,400	.61	3860

DIMENSIONS (in.)



BLOWER DATA

External Static Pressure (in. wg)	Air Volume (cfm) @ Various Controller Speeds		
	High	Medium	Low
.05	1170	975	815
.10	1145	960	810
.15	1120	945	805
.20	1092	927	796
.25	1063	910	786
.30	1032	890	770
.40	965	838	730
.50	892	770	680
.60	796	690	----
.70	680	----	----