

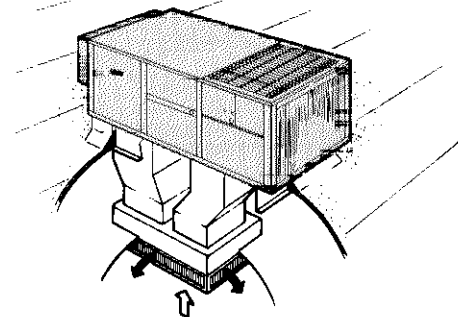


**CHA11-1853 & CHA11-2753
SINGLE PACKAGE AIR CONDITIONERS**
*180,000 to 240,000 Btuh Cooling Capacity
68,000 to 307,000 Btuh Optional Electric Heat
175,000 to 600,000 Btuh Optional Hot Water Heat

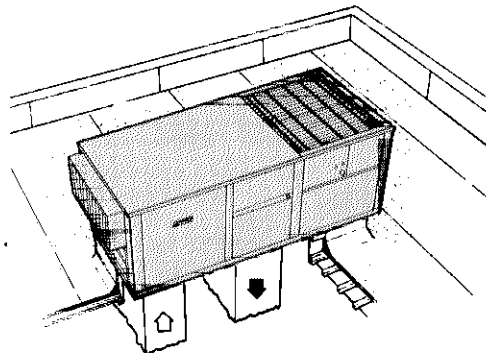
*At ARI Standard 210 Test Conditions

ADVANCED
ENGINEERING DATA
COOLING UNITS
PACKAGED
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May 1, 1983

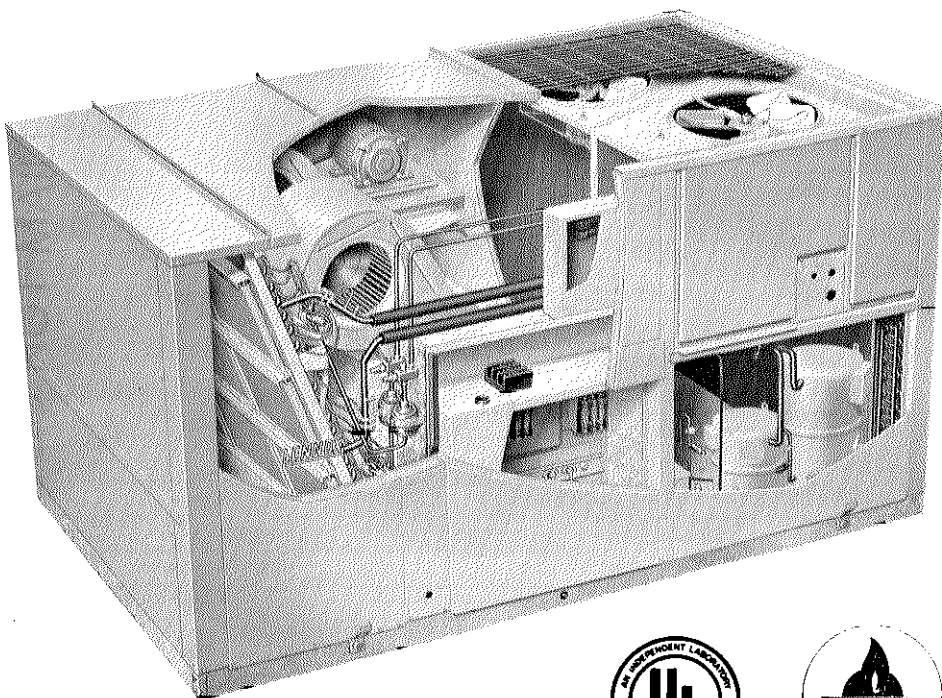
Typical Applications



Rooftop Installation with
Combination Ceiling Supply and Return Air System



Rooftop Installation with
Double Duct Air Distribution System



High Efficiency Rooftop Units Feature Energy Saving Operation, Low Operating Cost and Application Flexibility

Lennox single package CHA11 air conditioner units are designed for rooftop installation with bottom or end handling of supply and return air. A separate roof mounting frame (optional) mates to the bottom of the unit and when flashed into the roof permits weather-proof duct connection and entry into the structure. No additional roof curbing or flashing is required. The roof mounting frame is shipped knocked down and must be field assembled. Units are available for cooling only, cooling with electric heat or cooling with hot water heat. Four voltage options provide a choice for power supply requirements.

Energy and operational cost saving features include: Demand oriented solid-state electronic control system. Dual refrigerant circuits to control system capacity and reduce energy usage. POWER SAVER® option will provide "free cooling" by using outdoor air in lieu of mechanical refrigeration. POWER SAVER Enthalpy control provides maximum use of the outdoor air for "free" cooling. Staging of electric heaters and modulating control of the hot water heat minimizes energy usage for the heating options

The insulated single cabinet houses highly efficient air cooled DX cooling, powerful belt drive blower, air filters and optional POWER SAVER dampers or minimum fresh air dampers and exhaust dampers. Energy conserving POWER SAVER dampers are available

factory or field installed. Exhaust dampers and minimum fresh air dampers (manual or automatic) require field installation.

The complete factory sealed DX cooling consists of two independent refrigeration systems including separate Lennox compressors and their independent condenser coil and fan with a separate circuit in the single evaporator coil. Lennox augments its reliable operating components with a full complement of standard comfort and safety controls. Thermostat is not furnished and must be ordered extra. Separate supply and return air double duct, combination ceiling supply and return air duct, or horizontal (end) duct systems are applicable to the units. A choice of RTD stepdown or FD flush model diffusers are available for ceiling supply and return air distribution systems.

Units have been tested in the Lennox Laboratory and rated at ARI Standard 360 test conditions. Blower data is from unit tests in the Lennox air test chamber. Units are C.G.A. certified, U.L. Listed and components within are bonded for grounding to meet safety standards for servicing required by U.L. and NEC.

Units are shipped completely factory assembled, piped, and wired. In addition, each unit is test operated at the factory insuring unit dependability and reducing start-up problems.

SPECIFICATIONS

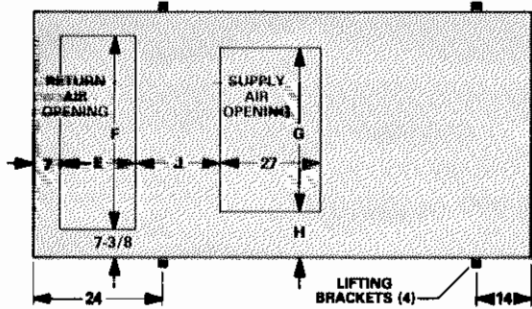
Model Number		CHA11-1853	CHA11-2753	
*At ARI Standard 360 Test Conditions	Total cooling capacity (Btuh)	180,000	240,000	
	Total unit watts	21,900	28,800	
	EER (Btuh/Watts)	8.2	8.3	
	Dehumidifying capacity	27%	26%	
Refrigerant (22) charge		26 lbs. — 2 oz.	39 lbs. — 8 oz.	
Evaporator Blower	Blower wheel nominal diam. x width (in.)	15 x 9	15 x 15	
	Motor horsepower (minimum-maximum)	5	5 — 7.5	
Evaporator Coil	Net face area (sq. ft.)	17.2	23.5	
	Tube diam. (in.) & No. of rows	1/2 — 3	1/2 — 3	
	Fins per inch	13	15	
Condenser Coil	Net face area (sq. ft.)	31.9 (total)	38.9	
	Tube diam. (in.) & No. of rows	(1) 3/8 — 3 & (1) 3/8 — 4	3/8 — 4	
	Fins per inch	20	20	
Condenser Fans	Diameter (in.) & No. of blades	(1) 24 — 4 and (1) 26 — 5	(2) 26 — 5	
	Air volume (cfm) (factory setting)	(1) 4400 and (1) 6700	(2) 6700	
	Motor horsepower	(1) 1/2 and (1) 1	(2) 1	
	Motor watts (factory setting)	(1) 550 and (1) 1100	(2) 1050	
Condensate drain size mpt (in.)		(2) 1-1/4	(2) 1-1/4	
No. & size of filters (in.)		(9) 16 x 20 x 1	(11) 16 x 20 x 1	
Net weight of basic unit (lbs.) (1 Package)		2300	2900	
Optional Electric Heat	Model No.	ECH11-185	ECH11-275	
	kw input range	20-30-45-60-75	30-45-60-75-90	
Optional Hot Water Coil	Model No. & Net Weight	HWC11-185 (120 lbs.)	HWC11-275 (130 lbs.)	
	**Heating capacity range (Btuh)	175,000 — 560,000	200,000 — 600,000	
	Net face area (sq. ft.)	9.9	11.2	
	Tube diameter (in.) — No. of rows	1/2 — 2	1/2 — 2	
	Fins per inch	16	16	
Optional Roof Mounting Frame — (Net weight)		RMF11-185 (265 lbs.)	RMF11-275 (315 lbs.)	
		RMFH11-185 (375 lbs.)	RMFH11-275 (440 lbs.)	
		RMFA11-185 (470 lbs.)	RMFA11-275 (510 lbs.)	
Optional Power Saver & Controls — (Net weight)		PSD11-185 (235 lbs.)	PSD11-275 (290 lbs.)	
Optional Gravity Exhaust Dampers (Net weight)		GED11-185 (25 lbs.)	GED11-275 (30 lbs.)	
Optional Power Exhaust Dampers	Model No. — (Net weight)		PED11-185 (110 lbs.)	PED11-275 (150 lbs.)
	Exhaust Fans	Diameter (in.) & No. of blades	(2) 18 — 5	(3) 18 — 5
		Total air volume (cfm)	5050	7050
		Motor horsepower	(2) 1/4	(3) 1/4
		Watts input (total)	730	1100
Optional Ceiling Supply & Return Step-Down Diffuser — (Net weight)		RTD11-185 (120 lbs.)	RTD11-275 (170 lbs.)	
Optional Ceiling Supply & Return Flush Diffuser — (Net weight)		FD11-185 (120 lbs.)	FD11-275 (170 lbs.)	
Optional Ceiling Supply & Return Transitions — (Net weight)		SRT11-185 (70 lbs.)	SRT11-275 (80 lbs.)	
Optional Fresh Air Damper & Filter Size (in.) — (Net weight)		OAD11-185 (90 lbs.) 1—25x27x1	OAD11-275 (115 lbs.) 1—26x31x1	
Optional Automatic OAD11 Damper Kit — (Net weight)		99C94 (15 lbs.)	99C94 (15 lbs.)	
Optional Remote Status Panel		SP11 (12F83)	SP11 (12F83)	
Optional Remote Switching Status Panel		SSP11 (12F84)	SSP11 (12F84)	
†Optional Powered Mixing Damper Boxes		ZDB1-400 (51 lbs.), ZDB1-800 (76 lbs.), ZDB1-1200 (108 lbs.) & ZDB1-1600 (119 lbs.)		
Electrical characteristics		200 to 575 volt — 60 hertz — 3 phase		

*Rated in accordance with ARI Standard 360; 450 cfm (maximum) evaporator air volume per ton of cooling, 95°F outdoor air temperature and 80°F db/67°F wb entering evaporator air.

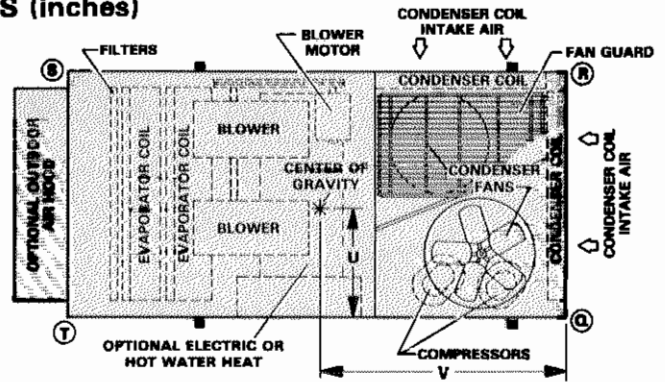
**Capacity range shown is possible with varying supply conditions and air volumes.

†See bulletin (Page 7) in Accessories section for complete data.

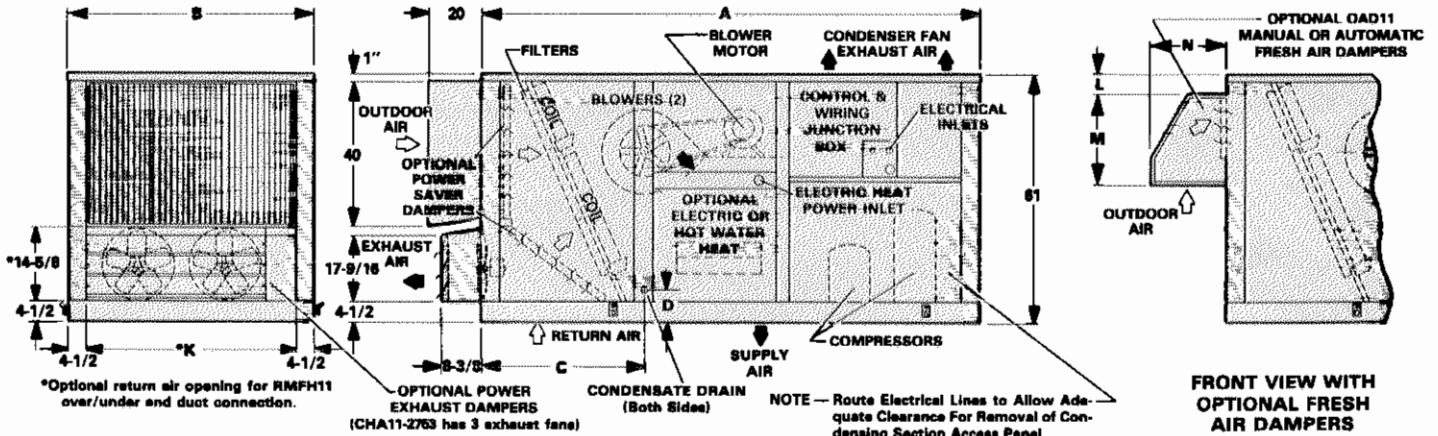
DIMENSIONS (inches)



TOP VIEW BASE SECTION



TOP VIEW



FRONT VIEW

FRONT VIEW WITH OPTIONAL FRESH AIR DAMPERS

EXHAUST & OUTDOOR AIR INTAKE VIEW

Model No.	A	B	C	D	E	F	G	H	J	K	L	M	N
CHA11-1853	116-1/2	68	32-7/8	8-5/16	18	53-5/8	47	10-1/2	19-1/4	58-3/4	1-5/8	27-1/2	22-1/4
CHA11-2753	142	78	41	2-3/4	22-1/2	63-5/8	53	12-1/2	20-3/4	68-3/4	7-3/8	33-1/4	24-1/4

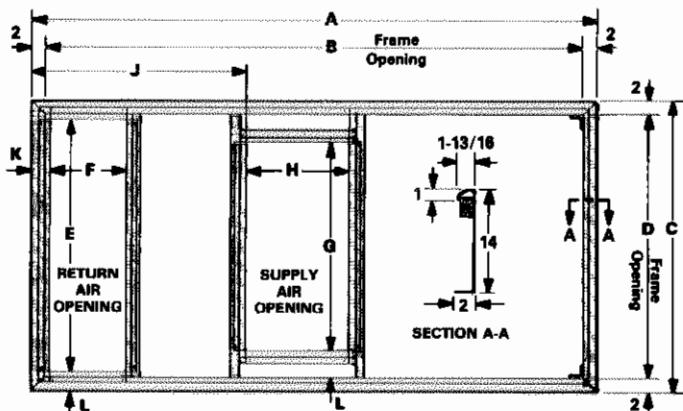
CORNER WEIGHTS (lbs.)

CENTER OF GRAVITY (in.)

Model No.		Q	R	S	T
CHA11-1853	Basic Unit	688	578	489	567
	With Power Saver	744	605	532	654
	With Power Saver/Exhaust Fans	764	621	565	695
CHA11-2753	Basic Unit	787	729	665	719
	With Power Saver	875	770	723	821
	With Power Saver/Exhaust Fans	904	795	768	873

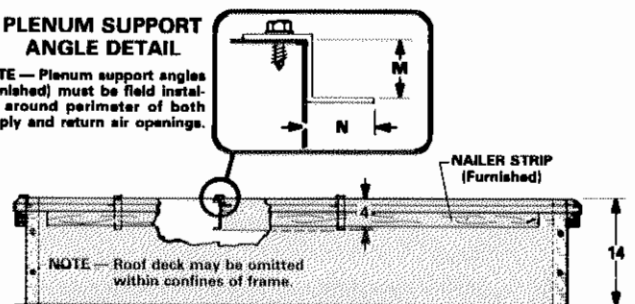
Model No.		U	V
CHA11-1853	Basic Unit	31-1/2	53-1/2
	With Power Saver	30-1/2	54-1/2
	With Power Saver/Exhaust Fans	30-1/2	55-1/2
CHA11-2753	Basic Unit	37-1/2	67-3/4
	With Power Saver	36-1/2	68-3/4
	With Power Saver/Exhaust Fans	36-1/2	69-3/4

RMF11 ROOF MOUNTING FRAME WITH DOUBLE DUCT OPENING



PLENUM SUPPORT ANGLE DETAIL

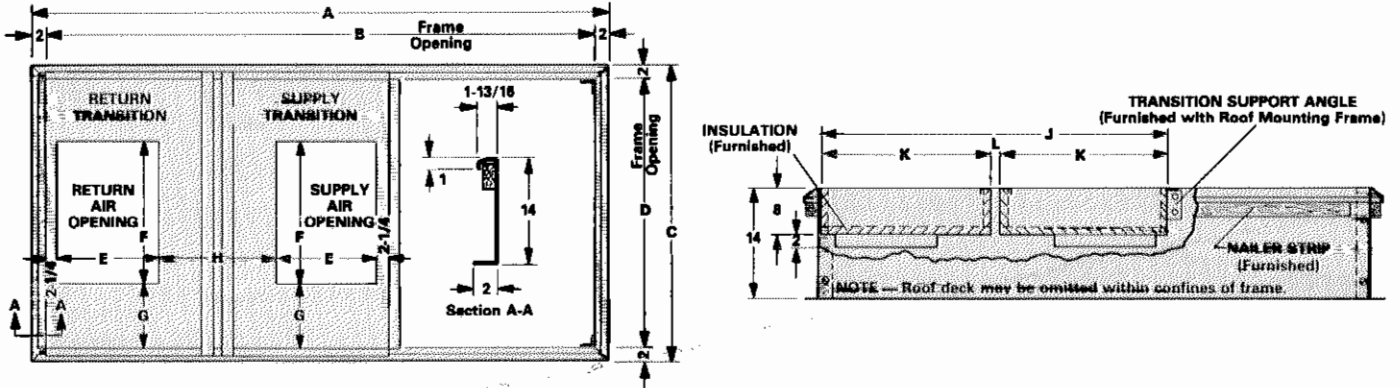
NOTE — Plenum support angles (furnished) must be field installed around perimeter of both supply and return air openings.



Model No.	A	B	C	D	E	F	G	H	J	K	L	M	N
RMF11-185	108-1/8	104-1/8	59-5/8	55-5/8	54-1/4	18-5/8	47-5/8	27-5/8	40-9/16	2-11/16	4	5/8	11/16
RMF11-275	133-11/16	129-11/16	89-5/8	65-5/8	64-1/4	23-1/8	53-5/8	27-5/8	45-15/16	2-11/16	6	5/8	11/16

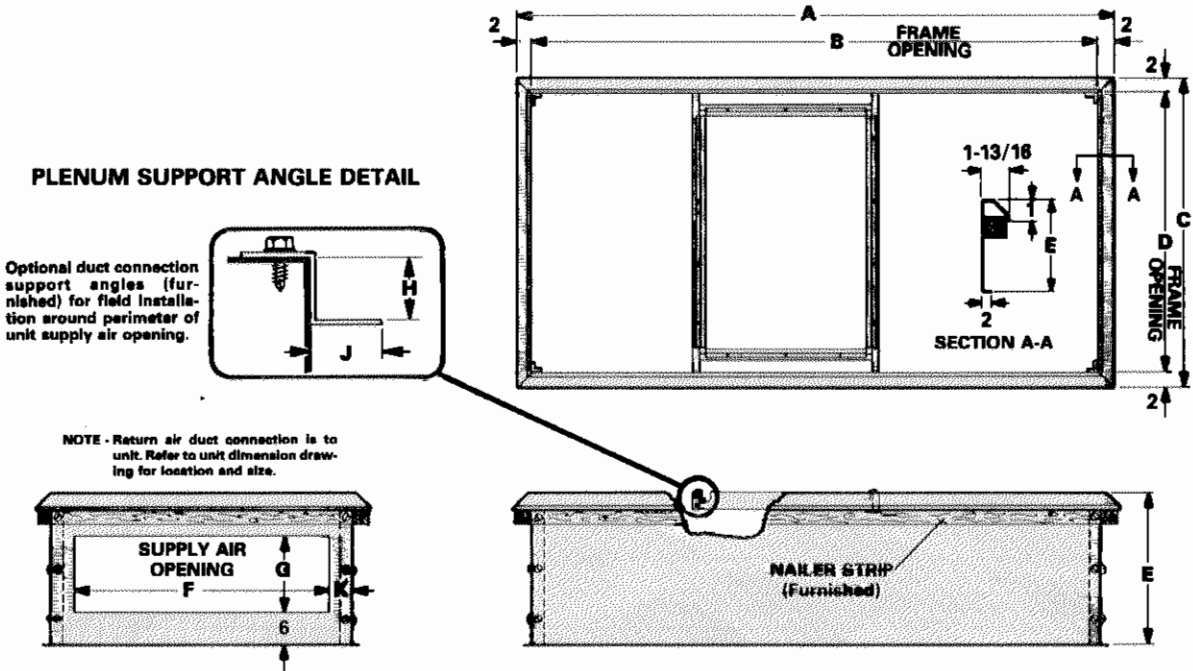
DIMENSIONS (inches)

RMF11 ROOF MOUNTING FRAME WITH CEILING SUPPLY AND RETURN TRANSITION



Model No.	A	B	C	D	E	F	G	H	J	K	L
RMF11-185	108-1/8	104-1/8	59-5/8	55-5/8	18	36	9-13/16	25-3/4	66-1/4	32-7/8	1/2
RMF11-275	133-11/16	129-11/16	69-5/8	65-5/8	24	48	8-13/16	19-3/4	72-1/4	35-7/8	1/2

RMFH11 HORIZONTAL ROOF MOUNTING FRAME



Model No.	A	B	C	D	E	F	G	H	J	K
RMFH11-185	108-1/8	104-1/8	59-5/8	55-5/8	30	48	17	5/8	11/16	3-13/16
RMFH11-275	133-11/16	129-11/16	69-5/8	65-5/8	30	58	17	5/8	11/16	3-13/16