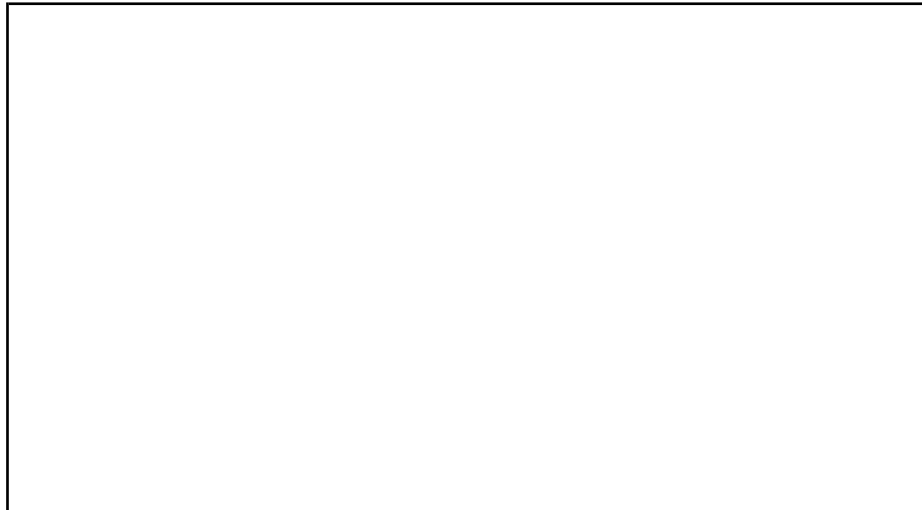




48SS018, 024, 030, 036, 042, 048 & 060

**STANDARD-EFFICIENCY
COMBINATION GAS HEATING/
ELECTRIC COOLING UNITS**

- PERFORMANCE DATA
- CERTIFIED DIMENSION PRINT
- CERTIFIED ROOF CURB
DIMENSION PRINT



Date:	Supersedes:	48SS018, 024, 030, 036, 042, 048 & 060 STANDARD-EFFICIENCY COMBINATION GAS HEATING/ ELECTRIC COOLING UNITS	48SS	Rev.: -3SB
JOB DATA:		LOCATION:		
BUYER:		BUYER P.O. #	CARRIER #	
UNIT NUMBER:		MODEL NUMBER:		
PERFORMANCE DATA CERTIFIED BY:			DATE:	



ARI 210



ARI 270



ISO 9002 #A2260



DESCRIPTION

48SS units are standard-efficiency, one-piece gas heating electric cooling units, pre-wired and pre-charged at the factory.

48SS units are convertible discharge units that can be used for either horizontal or down discharge installations.

FEATURES

Standard one-year warranty.
 Five-year Extended Protection Plan for the compressor.
 Ten-year non-prorated warranty on heat exchanger.
 Units are "Rated in accordance with ARI Standard No. 270 and 210/240."
 Standard unit as factory assembled is design certified and listed by UL and CSA.
 Low temperature cooling operation standard to 40 F (4 C).
 Hermetic compressor with internal linebreak and overload protection, self lubricating. Scroll compressors on 4 and 5 ton sizes.
 Crankcase heater is standard on 024-042 3-phase units. (Not required on 018, 048 and 060 units.)
 Indoor and outdoor coils constructed of aluminum fins mechanically bonded to seamless copper tubes.
 48SS units have single-stage cooling and heating.
 Foil-faced cleanable insulation.
 Sloped non-corrosive condensate drain pan.

Single-point gas connection.
 Alternate electrical connections on opposite sides of unit.
 Disconnect in accordance with NEC, must be field-supplied and installed.
 Multi-speed, direct drive indoor fan motor.
 Weatherized cabinets. Heavy duty phosphated zinc-coated pre-painted steel. Capable of withstanding 500-hour salt spray.
 24-volt control circuit.
 Heating controls include a direct spark ignition with flame rectification. Fan switch, overtemperature switch, and flame roll-out switch also included.
 Induced-draft with hall effect sensor (to prove proper inducer draft motor operation).
 Alumaguard™ coated "Super-S" four-pass heat exchanger.
 Integrated gas control board provides anti-cycle protection for gas heat operation.
 Base rail standard on all 3-phase units.

PERFORMANCE DATA

Operating Weight _____ lb (unit); _____ lb (curb)
COOLING
 Net Total Capacity _____ Btuh
 Net Sensible Capacity _____ Btuh
 Compressor Power Input _____ kW @ _____ °F
 Outdoor-Air Temperature
 Indoor Entering Air db _____ °F wb _____ °F
 SEER/EER _____

CFM _____ Ext. Static Pressure _____ in. wg
 Indoor Fan Motor _____ Hp _____ Rpm _____ Bhp

HEATING

Input _____ Btuh
 Output _____ Btuh
 AFUE _____ %

ELECTRICAL DATA

Power Supply to Unit _____ Volts _____ Phase _____ Hz.
 Minimum Circuit Amps _____ Maximum Overcurrent Protection _____

ACCESSORIES AND OPTIONS

FACTORY-INSTALLED OPTIONS

- Commercial Grade Base Rail
- Dedicated Downshot/Base Rail


FIELD-INSTALLED ACCESSORIES

- 30% Open Manual Fresh Air Damper
- Roof Curb:
 - 8" Height
 - 11" Height
 - 14" Height
- One-in. Filter Rack
- Crankcase Heater — Single Phase Only (Required with 0° Low Ambient)

FIELD-INSTALLED ACCESSORIES (cont)

- Programmable Electronic Thermostat
- Thermostat and Subbase
- 0° Low Ambient
- Time Guard® II
- L.P. Conversion Kit
- Controls Upgrade Kit (High and Low-Pressure Switch)
- External Condensate Trap
- Natural Gas High-Altitude Kit (2000-5000 ft Above Sea Level)

CERTIFIED DIMENSION PRINT

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REQ'D CLEARANCES FOR SERVICING — in. (mm)

Duct Panel	.0
Unit Top	36 (914.4)
Side Opposite Ducts	36 (914.4)
Compressor Access	36 (914.4)

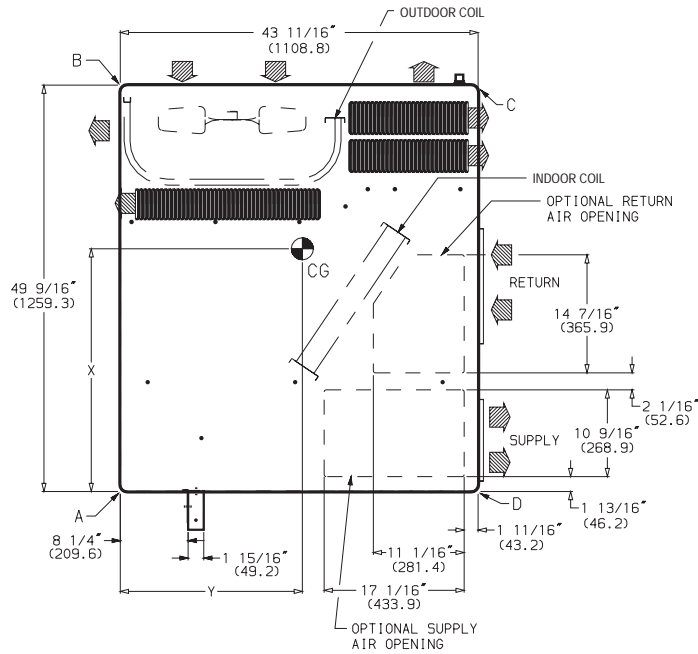
(Except for NEC requirements)

REQ'D CLEARANCES TO COMBUSTIBLE MAT'L — in. (mm)

Maximum Extension of Overhangs	48 (1219.2)
Unit Top	14 (355.6)
Duct Side of Unit	2 (50.8)
Side Opposite Ducts	14 (355.6)
Bottom of Unit	.0
Flue Panel	36 (914.4)

NEC (National Electrical Code) REQ'D CLEARANCES — in. (mm)

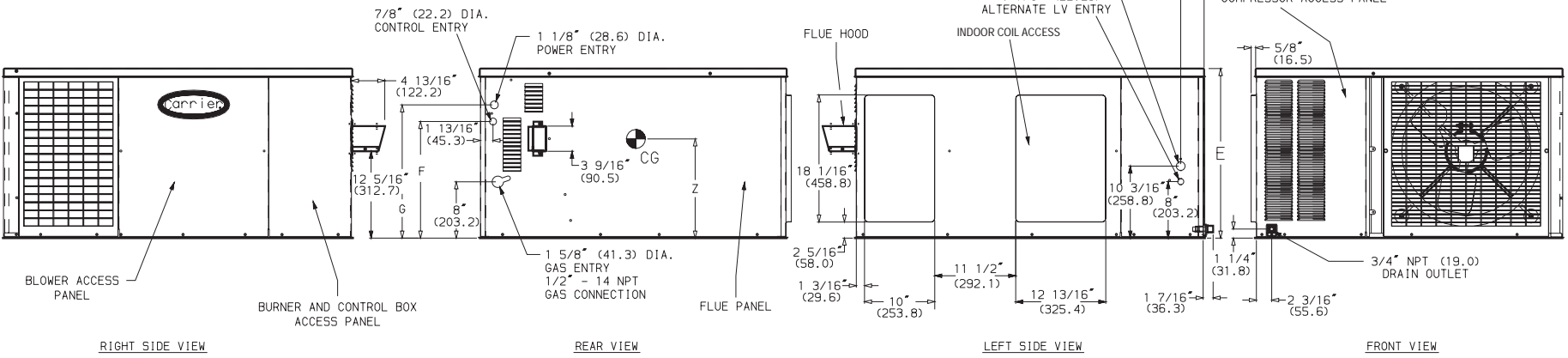
Between Units, Control Box Side	42 (1066.8)
Unit and Ungrounded Surfaces, Control Box Side	36 (914.4)
Unit and Block or Concrete Walls and Other Grounded Surfaces, Control Box Side	42 (1066.8)



NOTE: Clearances must be maintained to prevent recirculation of air from outdoor fan discharge.


UNIT 48SS	ELECTRICAL CHARACTERISTICS	UNIT WEIGHT		CORNER WEIGHT (lb/kg)			
		lb	kg	A	B	C	D
018040	208/230-1-60	272	123	81/37	62/28	76/35	53/24
024040	208/230-1-60	303	138	97/44	43/20	123/56	40/18
024060	208/230-1-60	315	143	100/45	46/21	126/57	43/20
030040	208/230-1-60	320	145	100/45	47/21	126/57	47/21
030060/080	208/230-1-60	324	147	94/43	63/29	115/52	52/24
036060/080	208/230-1-60	336	153	86/39	76/35	111/50	63/29
036100/120	208/230-1-60	348	158	89/40	79/36	114/52	66/30
042060/080	208/230-1-60	375	170	95/43	86/39	119/54	75/34
042100/120	208/230-1-60	387	176	98/45	89/40	122/55	78/35

UNIT 48SS	UNIT HEIGHT (in./mm)	DIMENSION (in./mm)			CENTER OF GRAVITY (in./mm)		
		E	F	G	X	Y	Z
018040	24.12/612.8	16 9/16/420.7	18 1/8/461.0	25.07/637	20.59/523	10.85/276	
024040	24.12/612.8	16 9/16/420.7	18 1/8/461.0	27.07/688	23.35/693	10.85/276	
024060	24.12/612.8	16 9/16/420.7	18 1/8/461.0	26.98/685	23.27/591	10.85/276	
030040	24.12/612.8	16 9/16/420.7	18 1/8/461.0	26.71/678	23.46/596	10.85/276	
030060/080	24.12/612.8	16 9/16/420.7	18 1/8/461.0	27.15/689	22.36/568	10.85/276	
036060/080	24.12/612.8	16 9/16/420.7	18 1/8/461.0	27.50/698	22.48/571	10.85/276	
036100/120	24.12/612.8	16 9/16/420.7	18 1/8/461.0	27.40/696	22.44/570	10.85/276	
042060/080	28.12/714.2	20 9/16/522.3	22 1/8/562.6	27.01/686	22.44/570	12.65/321	
042100/120	28.12/714.2	20 9/16/522.3	22 1/8/562.6	26.94/684	22.44/570	12.65/321	



DATE: 05/17/95
 REVISIONS: 04/20/94
 SINGLE ZONE ELECTRIC COOLING WITH GAS HEAT
 4855018 - 4855042
 485500270

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REQ'D CLEARANCES FOR SERVICING

— in. (mm)

Duct Panel	0
Unit Top	36 (914.4)
Side Opposite Ducts	36 (914.4)
Compressor Access (Except for NEC requirements)	36 (914.4)

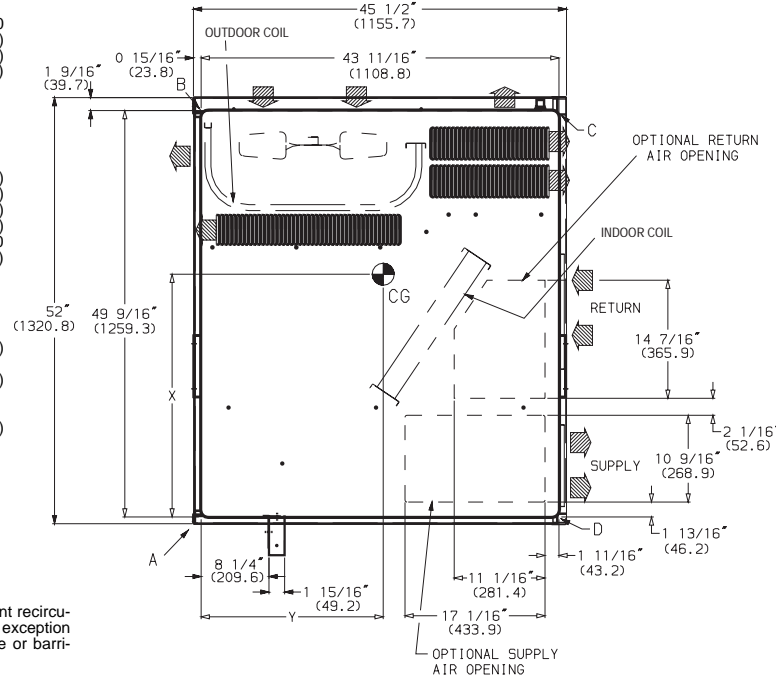
REQ'D CLEARANCES TO COMBUSTIBLE

MAT'L — in. (mm)

Maximum Extension of Overhangs	48 (1219.2)
Unit Top	14 (355.6)
Duct Side of Unit	2 (50.8)
Side Opposite Ducts	14 (355.6)
Bottom of Unit	0
Flue Panel	36 (914.4)

NEC (National Electrical Code) REQ'D CLEARANCES — in. (mm)

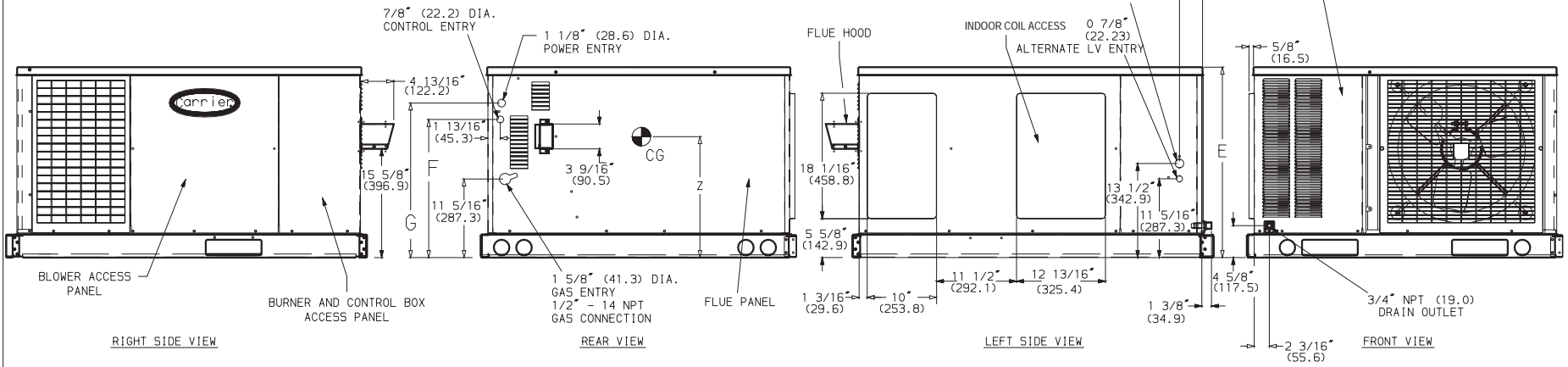
Between Units, Control Box Side	42 (1066.8)
Unit and Ungrounded Surfaces, Control Box Side	36 (914.4)
Unit and Block or Concrete Walls and Other Grounded Surfaces, Control Box Side	42 (1066.8)



NOTE: Clearances must be maintained to prevent recirculation of air from outdoor fan discharge, with the exception of the outdoor coil as stated. A removable fence or barricade requires no clearance.

UNIT 48SS	ELECTRICAL CHARACTERISTICS	UNIT WEIGHT		CORNER WEIGHT (lb/kg)			
		lb	kg	A	B	C	D
018040	208/230-1-60	296	135	87/40	68/31	82/37	59/27
024040	208/230-1-60	327	149	103/47	49/22	129/59	46/21
024060	208/230-1-60	339	155	106/48	52/24	132/60	49/22
030040	208/230-1-60, 208/230-3-60	344	157	106/48	53/24	132/60	53/24
030060/080	208/230-1-60, 208/230-3-60	356	162	102/46	71/32	123/56	60/27
036060/080	208/230-1-60, 208/230-3-60, 460-3-60, 575-3-60	360	164	92/42	82/37	117/53	69/31
036100/120	208/230-1-60, 208/230-3-60, 460-3-60, 575-3-60	372	169	95/43	85/39	120/55	72/33
042060/080	208/230-1-60, 208/230-3-60, 460-3-60	399	181	101/46	92/42	125/57	81/37
042100/120	208/230-1-60, 208/230-3-60, 460-3-60	411	187	104/47	95/43	128/58	84/38

UNIT 48SS	UNIT HEIGHT (in./mm)	DIMENSION (in./mm)			CENTER OF GRAVITY (in./mm)		
		E	F	G	X	Y	Z
018040	27.43/696.7	19 1/4/504.8	22 1/4/565.4	25.04/636.0	22.72/577.0	13.16/334.3	
024040	27.43/696.7	19 1/4/504.8	22 1/4/565.4	26.90/683.3	20.17/512.3	13.16/334.3	
024060	27.43/696.7	19 1/4/504.8	22 1/4/565.4	26.82/681.2	20.22/513.6	13.16/334.3	
030040	27.43/696.7	19 1/4/504.8	22 1/4/565.4	26.57/674.9	20.05/509.3	13.16/334.3	
030060/080	27.43/696.7	19 1/4/504.8	22 1/4/565.4	26.93/684.0	21.08/535.4	13.16/334.3	
036060/080	27.43/696.7	19 1/4/504.8	22 1/4/565.4	27.31/693.7	20.97/532.6	13.16/334.3	
036100/120	27.43/696.7	19 1/4/504.8	22 1/4/565.4	27.23/691.6	20.99/533.1	13.16/334.3	
042060/080	31.43/798.3	23 1/4/606.4	26 1/4/666.8	26.87/682.5	20.99/533.1	14.96/380.0	
042100/120	31.43/798.3	23 1/4/606.4	26 1/4/666.8	26.81/681.0	21.01/533.7	14.96/380.0	



DATE: 05/17/95
 SUBMITTER: 04/05/94
 SINGLE ZONE ELECTRIC COOLING WITH GAS HEAT
 48SS018 - 48SS042
 48SS500513
 REV: A

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P O BOX 4808
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13221

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REQ'D CLEARANCES FOR SERVICING — in. (mm)

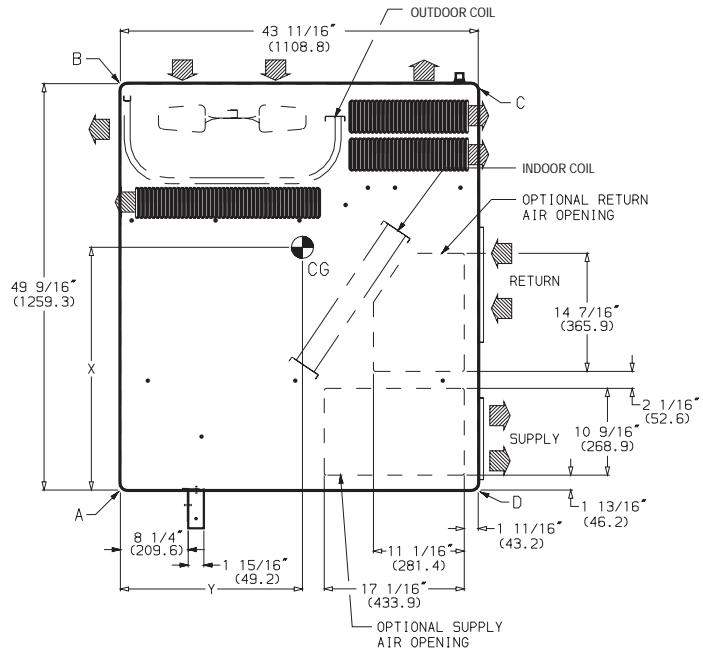
Duct Panel	0
Unit Top	36 (914.4)
Side Opposite Ducts	36 (914.4)
Compressor Access	36 (914.4)
(Except for NEC requirements)	

REQ'D CLEARANCES TO COMBUSTIBLE MAT'L

— in. (mm)	
Maximum Extension of Overhangs	48 (1219.2)
Unit Top	14 (355.6)
Duct Side of Unit	2 (50.8)
Side Opposite Ducts	14 (355.6)
Bottom of Unit	0
Flue Panel	36 (914.4)

NEC (National Electrical Code) REQ'D CLEARANCES

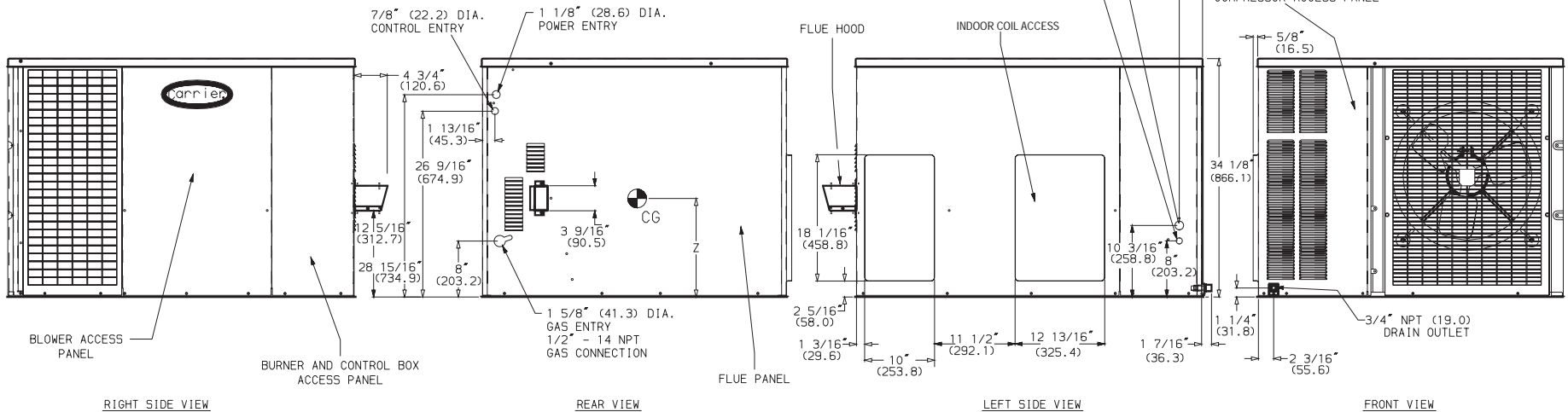
— in. (mm)	
Between Units, Control Box Side	42 (1066.8)
Unit and Ungrounded Surfaces,	
Control Box Side	36 (914.4)
Unit and Block or Concrete Walls and Other	
Grounded Surfaces, Control Box Side	42 (1066.8)



UNIT 48SS	ELECTRICAL CHARACTERISTICS	UNIT WEIGHT		CORNER WEIGHT (lb/kg)			
		lb	kg	A	B	C	D
048080	208/230-1-60	414	188	107/49	83/38	158/72	66/30
048100/120/140	208/230-1-60	426	193	110/50	86/39	159/72	71/32
060080	208/230-1-60	453	206	117/53	93/42	167/76	76/35
060100/120/140	208/230-1-60	465	211	120/55	96/44	167/76	82/37

UNIT 48SS	CENTER OF GRAVITY (in./mm)		
	X	Y	Z
048080	28.76/731	23.46/596	15.35/390
048100/120/140	28.42/722	23.42/595	15.35/390
060080	28.36/720	23.27/591	15.35/390
060100/120/140	27.95/710	23.23/590	15.35/390

NOTE: Clearances must be maintained to prevent recirculation of air from outdoor fan discharge.



DATE 05/17/95

SHEET 04/20/94

4855048 - 4855050
SINGLE ZONE ELECTRIC COOLING WITH GAS HEAT

485500271



CERTIFIED DIMENSION PRINT

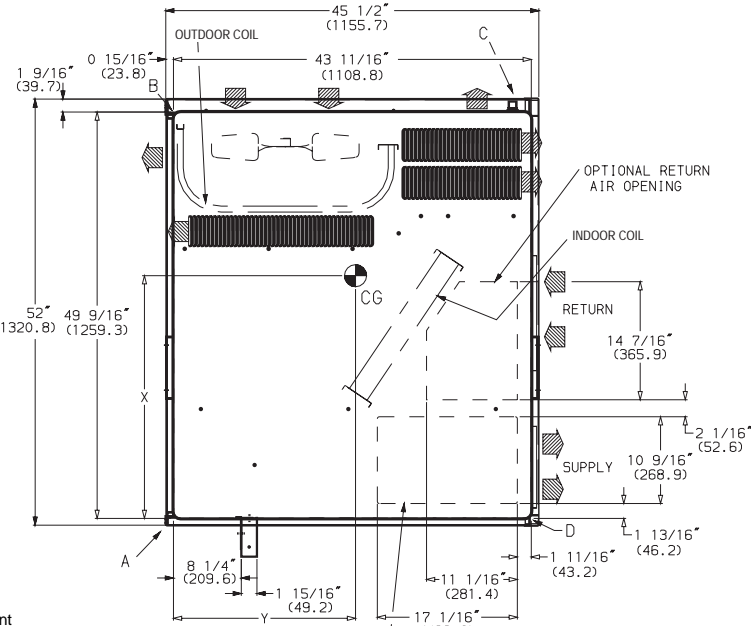
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REQ'D CLEARANCES FOR SERVICING

— in. (mm)	
Duct Panel	0
Unit Top	36 (914.4)
Side Opposite Ducts	36 (914.4)
Compressor Access (Except for NEC requirements)	36 (914.4)

REQ'D CLEARANCES TO COMBUSTIBLE MAT'L — in. (mm)

Maximum Extension of	
Overhangs	48 (1219.2)
Unit Top	14 (355.6)
Duct Side of Unit	2 (50.8)
Side Opposite Ducts	14 (355.6)
Bottom of Unit	0
Flue Panel	36 (914.4)



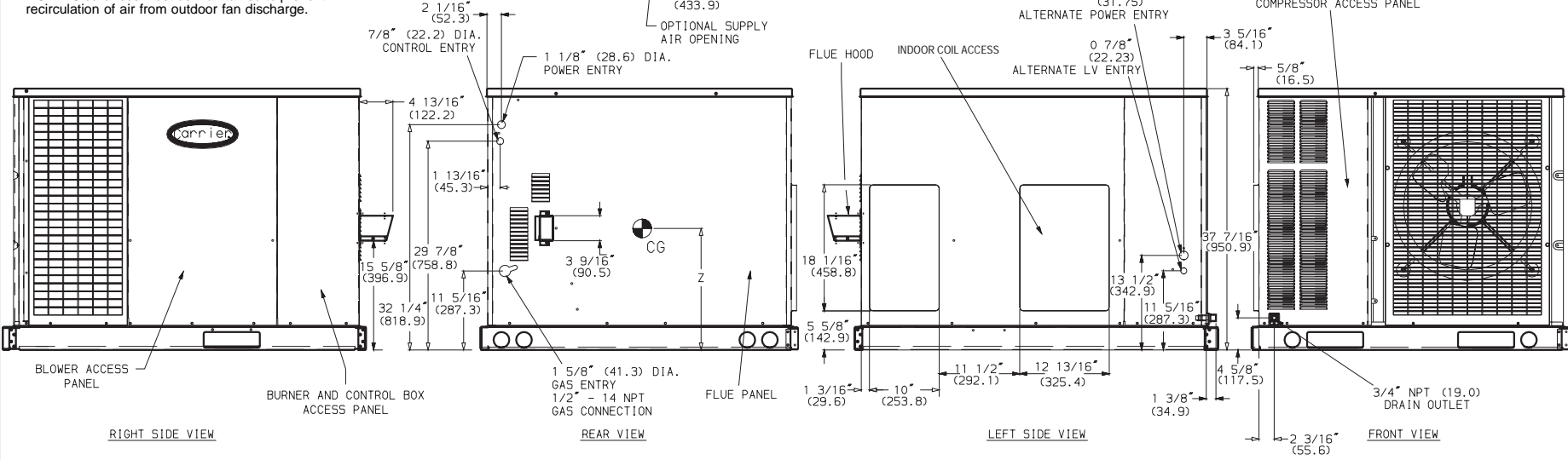
UNIT 48SS	ELECTRICAL CHARACTERISTICS	UNIT WEIGHT		CORNER WEIGHT (lb/kg)			
		lb	kg	A	B	C	D
048080	208/230-1-60, 208/230-3-60, 460-3-60, 575-3-60	438	199	113/51	89/40	164/75	72/33
048100/120/140	208/230-1-60, 208/230-3-60, 460-3-60, 575-3-60	450	205	116/53	92/42	165/75	77/35
060080	208/230-1-60, 208/230-3-60, 460-3-60, 575-3-60	477	217	123/56	99/45	173/79	82/37
060100/120/140	208/230-1-60, 208/230-3-60, 460-3-60, 575-3-60	489	222	126/57	102/46	173/79	88/40

UNIT 48SS	CENTER OF GRAVITY (in./mm)		
	X	Y	Z
048080	28.54/724.9	20.00/508.0	17.66/448
048100/120/140	28.22/716.8	20.05/509.3	17.66/448
060080	28.18/715.8	20.19/512.8	17.66/448
060100/120/140	27.79/705.9	20.23/513.8	17.66/448

NEC (National Electrical Code) REQ'D CLEARANCES — in. (mm)

Between Units, Control Box Side	42 (1066.8)
Unit and Ungrounded Surfaces, Control Box Side	36 (914.4)
Unit and Block or Concrete Walls and Other Grounded Surfaces, Control Box Side	42 (1066.8)

NOTE: Clearances must be maintained to prevent recirculation of air from outdoor fan discharge.



DATE: 05/17/95
 REVISIONS: 04/20/94
 SINGLE ZONE ELECTRIC COOLING WITH GAS HEAT
 4855048 - 4855060
 485500514
 REV: A

CERTIFIED ROOF CURB DIMENSION PRINT



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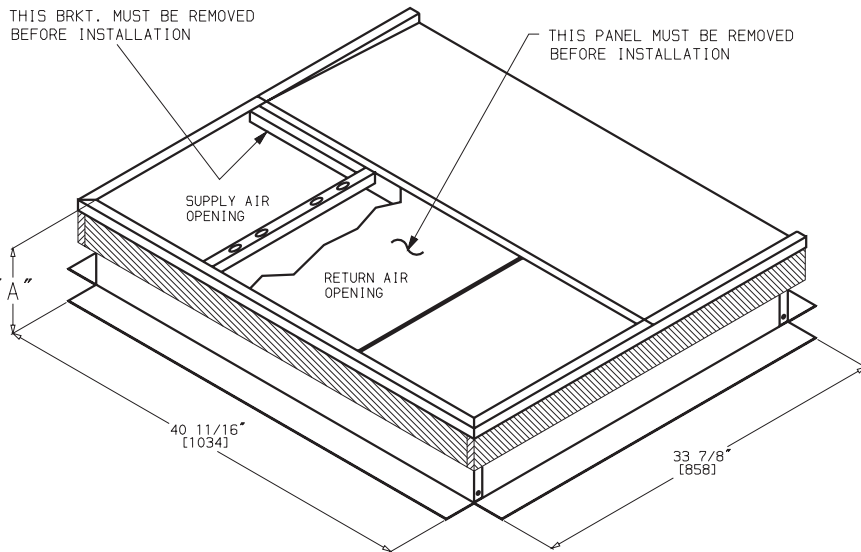
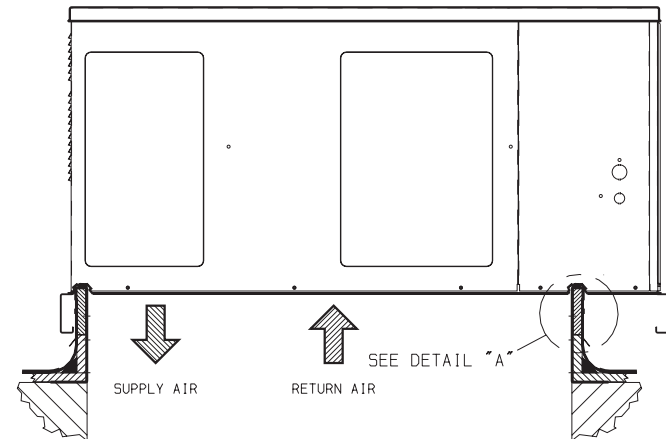
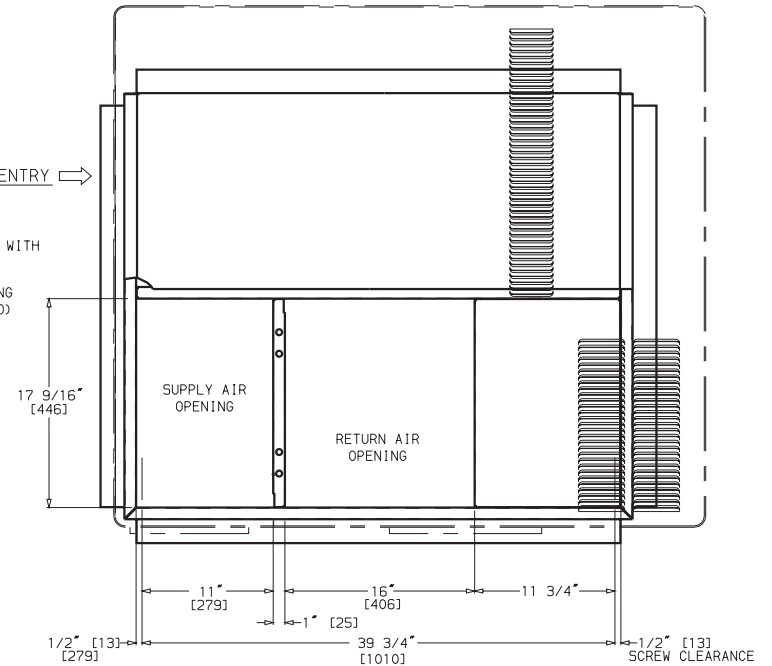
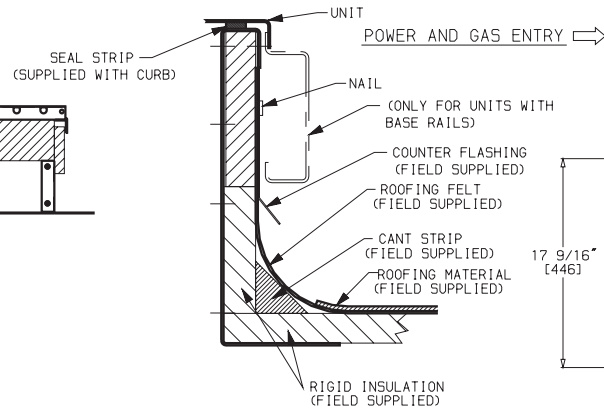
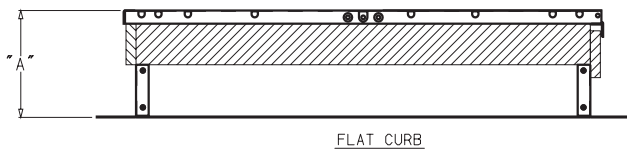
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NOTES:

1. Roof curb must be set up for unit being installed.
2. Seal strip must be applied as required for unit being installed.
3. Dimensions in [] are in millimeters.
4. Roof curb is made of 16 gage 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. Insulated Panels: 1-in. thick fiberglass 1 lb density.

PART NUMBER	CURB	"A" (in./mm)
CPRFCURB001A00		8 [203]
CPRFCURB002A00	FLAT	11 [279]
CPRFCURB003A00		14 [356]



DATE: 04/18/94
REVISED: 01/26/93
4855 018-060 ROOF CURB
4855500227
1
B

