



Unit Rating

2425 South Yukon Ave - Tulsa, Oklahoma 74107-2728 - Ph: (918) 583-2266 Fax: (918) 582-6064
AAONEcat02 Ver: 4.201 (SN: 6091536-B3LQ7GPW)

IA 1B 1C 1D 2 3 4 5A 5B 5C 6A 6B 6C 7 8 9 10 11 12 13 14A 14B 15 16 17 18 19 20 21 22 23
RN-050-3-0-EB09-196:CEHH-D00-FEH-AF0-000CH0D-00-0000000AB
 Tag: RTU# 1

Job Information

Job Name:
 Job Number:
 Site Altitude: 0 ft
 Refrigerant: R-410A

Unit Information

Approx. Op./Ship Weights: 6981 / 6981 lbs.
 Supply CFM/ESP: 16500 / 2 in. wg.
 Pre-Filter FV / Qty: 343.75 fpm / 24
 Final-Filter FV / Qty: 343.75 fpm / 24
 Return CFM/ESP/TSP: 16500 / 1.00 / 1.45 in. wg.
 Outside CFM: 2000
 Ambient Temperature: 100 °F DB / 75 °F WB
 Return Temperature: 78 °F DB / 64 °F WB

Static Pressure

External: 2.00 in. wg.
 Evaporator: 0.37 in. wg.
 Filters Clean: 0.35 in. wg.
 Dirt Allowance: 0 in. wg.

Economizer: 0.17 in. wg.
 Heating: 0.17 in. wg.
 Cabinet: 0.21 in. wg.
 Total: 3.27 in. wg.

Cooling Section

	Gross	Net
Total Capacity:	596.78	561.32 MBH
Sensible Capacity:	484.27	448.80 MBH
Latent Capacity:	112.52 MBH	
Mixed Air Temp:	80.67 °F DB	65.48 °F WB
Entering Air Temp:	80.67 °F DB	65.48 °F WB
Lv Air Temp (Coil):	52.92 °F DB	52.88 °F WB
Lv Air Temp (Unit):	54.89 °F DB	53.70 °F WB
Digital Comp. Capacity Ratio:	100%	
Supply Air Fan:	2 x 270D @ 6.39 BHP Ea.	
SA Fan RPM / Width:	1333 / 6.069"	
Return Air Fan:	1 x MW3505-25 @ 6.89 BHP Ea.	
RA Fan RPM / Pitch:	1562 / 25°	
Evaporator Coil:	43.8 ft ² / 6 Rows / 12 FPI	
Evaporator Face Velocity:	377.1 fpm	

Heating Section

PreHeat Type: Std (No Preheat)
 Heating Type: Electric Heat
 Heating CFM: 16500
 Total Capacity: 409.6 MBH
 OA Temp: 0.0 DB / -1.0 °F WB
 RA Temp: 70.0 °F DB / 58.0 °F WB
 Entering Air Temp: 61.5 °F DB / 53.1 °F WB
 Leaving Air Temp: 84.5 °F DB / 61.9 °F WB
 Input: 6 x 20.0 kW
 Heater Qty: 6
 Electric Heat FLA: 144.3

Rating Information

Cooling Capacity (MBH): 580.0
 Cooling EER: 11.2
 Cooling IEER: 13
 Rated in accordance with AHRI 340/360

Application EER @ Op. Conditions: 9.0

Electrical Data

Rating: 460/3/60
 Unit FLA: 186

Minimum Circuit Amp: 197
 Maximum Overcurrent: 200

	Qty	HP	VAC	Phase	RPM	FLA	RLA
Compressor 1:	2		460	3			18.6
Compressor 2:	2		460	3			18.6
Condenser Fans:	6	0.75	460	1	1075	2.3	
Supply Fan:	2	10.00	460	3	1760	14.0	
Return Fan:	1	10.00	460	3	1760	14.0	

Cabinet Sound Power Levels*

Octave Bands:	63	125	250	500	1000	2000	4000	8000
Discharge LW(dB):	93	93	95	96	92	90	87	83
Return LW(dB):	95	95	88	86	89	88	85	82

*Sound power levels are given for informational purposes only. The sound levels are not guaranteed.



Unit Submittal

2425 South Yukon Ave - Tulsa, Oklahoma 74107-2728 Ph (918) 383-2266 Fax (918) 583-6094
AAONEcat32 Ver. 4.201 (SN: 6091536-B3LQ7GFW)

1A 1B 1C 1D 2 3 4 5A 5B 5C 6A 6B 6C 7 8 9 10 11 12 13 14A 14B 15 16 17 18 19 20 21 22 23

RN-050-3-0-EB09-196:CEHH-D00-FEH-AF0-000CH0D-00-0000000AB
Tag: RTU# 1

Job Name:
Job Number:

Unit Submittal For:
Unit Submittal Date: April 10, 2013

Base Option	Description
R Series	Roof Top Unit
N Generation	Ninth Generation
050 Unit Size	Fifty
3 Voltage	460V/3Ø/60Hz
0 Interior Protection	Standard
E Refrigerant Style	R-410A Variable Capacity Scroll Compressor (VCC)
B Unit Configuration	Air-Cooled Cond. + 6 Row Evap. Coil
0 Coil Coating	Standard
9 Cooling/Heat Pump Staging	Modulating - 2 VCC + 2 On/Off Comp.
1 Heating Type	Electric Heat
9 Heating Designation	Heat 9 - 120 kW
6 Heating Staging	6 Stage

Feature Option	Description
C 1A. RAOA Section	Economizer + Power Return
E 1B. RAEA Blower Configuration	1 Blower + Premium Efficiency Motor + 1 VFD
H 1C. RAEA Blower	35.5" Direct Drive Axial Flow
H 1D. RAEA Blower Motor	10 hp - 1760 rpm
D 2. OA Control	Fully Modulating Actuator - Enthalpy Limit
0 3. Heat Options	Standard
0 4. Maintenance Options	Standard
F 5A. SA Blower Configuration	2 Blowers + Premium Efficiency Motors + 2 Motors on 1 VFD
E 5B. SA Blower	27" Direct Drive Backward Curved Plenum
H 5C. SA Motor	10 hp - 1760 rpm
A 6A. Pre Filter Type	2" Pleated Pre Filter - 30% Eff
F 6B. Unit Filter Type	4" Pleated - 65% Eff - MERV 11
0 6C. Filter Options	Standard
0 7. Refrigeration Control	Standard - Fixed 55°F Comp. Cooling Lock Out + 3 MTDR Comp. Off - Copeland Comfort Alert
0 8. Refrigeration Options	Standard
0 9. Refrigeration Accessories	Standard
C 10. Power Options	Power Switch - 225 amps
H 11. Safety Options	Remote Safety Shutdown Terminals
0 12. Controls	Standard
D 13. Special Controls	VAV Unit Controller - VAV Cool + CV Heat
0 14A. Preheat Configuration	Standard - None
0 14B. Preheat Sizing	Standard - None
0 15. Glycol Percent	Water or No WSHP
0 16. Interior Cabinet Options	Standard - Double Wall + R-13 Foam Insulation + Stainless Steel Drain Pan
0 17. Exterior Cabinet Options	Standard
0 18. Customer Code	Standard
0 19. Code Options	Standard - ETL U.S.A. Listing
0 20. Crating	Standard
0 21. Water-Cooled Cond.	Standard - None
A 22. Control Vendors	Wattmaster Controls
B 23. Type	Standard - Includes AAON Gray Paint



VCMX Components

2425 South Yukon Ave - Tulsa, Oklahoma 74107-0728 - Ph: 918-483-2966 Fax: 918-483-6894
 AAONEcat32 Ver. 4.201 (SN: 6091536-B3LQ7GFW)

1A 1B 1C 1D 2 3 4 5A 5B 5C 6A 6B 6C 7 8 9 10 11 12 13 14A 14B 15 16 17 18 19 20 21 22 23
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Tag: RTU# 1

Job Name:

VCMX For:

Job Number:

VCMX Date:

April 10, 2013

Hardware Included For VCMX Controller

Part #	Included Parts	Assigned Channel
V07150	VCMX Controller with EBUS	
P94320	Space Temp Sensor - Field Installed	MainController\AI1
R82890	Supply Air Temp Sensor - Field Installed	MainController\AI2
R82890	Return Air Temp Sensor	MainController\AI3
P87100	Duct Static Pressure Sensor	MainController\AI6
R81550	Outside Air Temp Sensor	MainController\AI4
R69190	VCMX Large Expansion Module	
R34700	Outside Air Humidity Sensor	LargeExpansionModule\AI1
P62520	Proof of Flow Sensor	LargeExpansionModule\BI3
R69180	VCMX Relay Expansion Module	

		1	2	3	4	5	6	7
VCMX Controller with EBUS	Analog In	X	X	X	X			X
	Analog Out	X	X					
	Binary In							
	Relay Out	X	X	X	X	X		
	Digital Sensor(s)							

		1	2	3	4	5	6	7	8
VCMX Large Expansion Module	Analog In	X							
	Analog Out			X					
	Binary In	X	X						
	Relay Out	X	X	X	X				

		1	2	3	4	5	6	7	8	9	10	11	12
VCMX Relay Expansion Module	Analog In												
	Analog Out												
	Binary In												
	Relay Out	X	X	X									

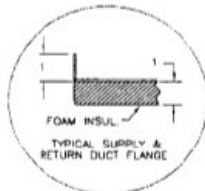
RN UNITS 26-70 TON AAON®

WITH ECONOMIZER AND POWER RETURN

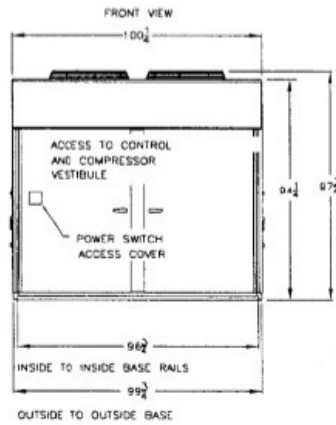
CLEARANCES	
LOCATION	UNIT SIZE
OUTSIDE AIR (BACK)	48
CONTROLS SIDE (FRONT)	48
LEFT SIDE	48
RIGHT SIDE	70
TOP	UNOBSTRUCTED

NOTE: RIGHT AND LEFT SIDE UNIT CLEARANCES ARE INTERCHANGEABLE ON UNITS THAT DO NOT HAVE THE HYDRONIC HEATING OPTION. (UNITS WITH HYDRONIC HEAT MUST HAVE 70" RIGHT SIDE ACCESS FOR SERVICE.)

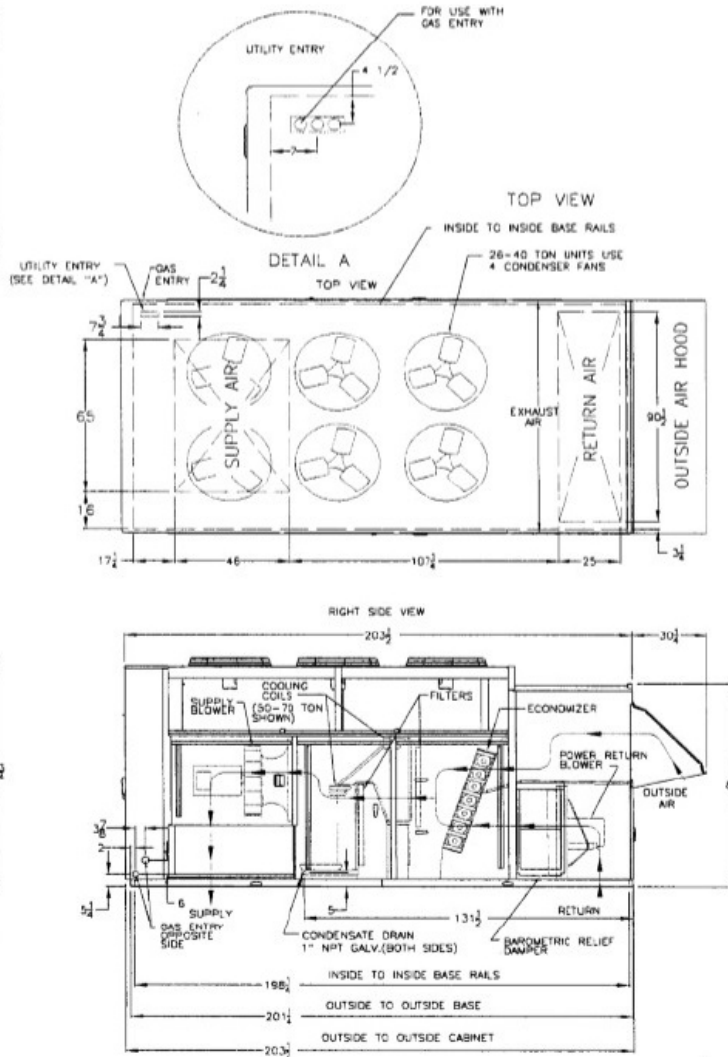
NOTE: 26-40 TON UNITS INCLUDES A SINGLE COOLING COIL. 50-70 TON UNIT INCLUDE TWO COOLING COILS.



DETAIL B



RND-00049 REV.A 07/24/08 SJS

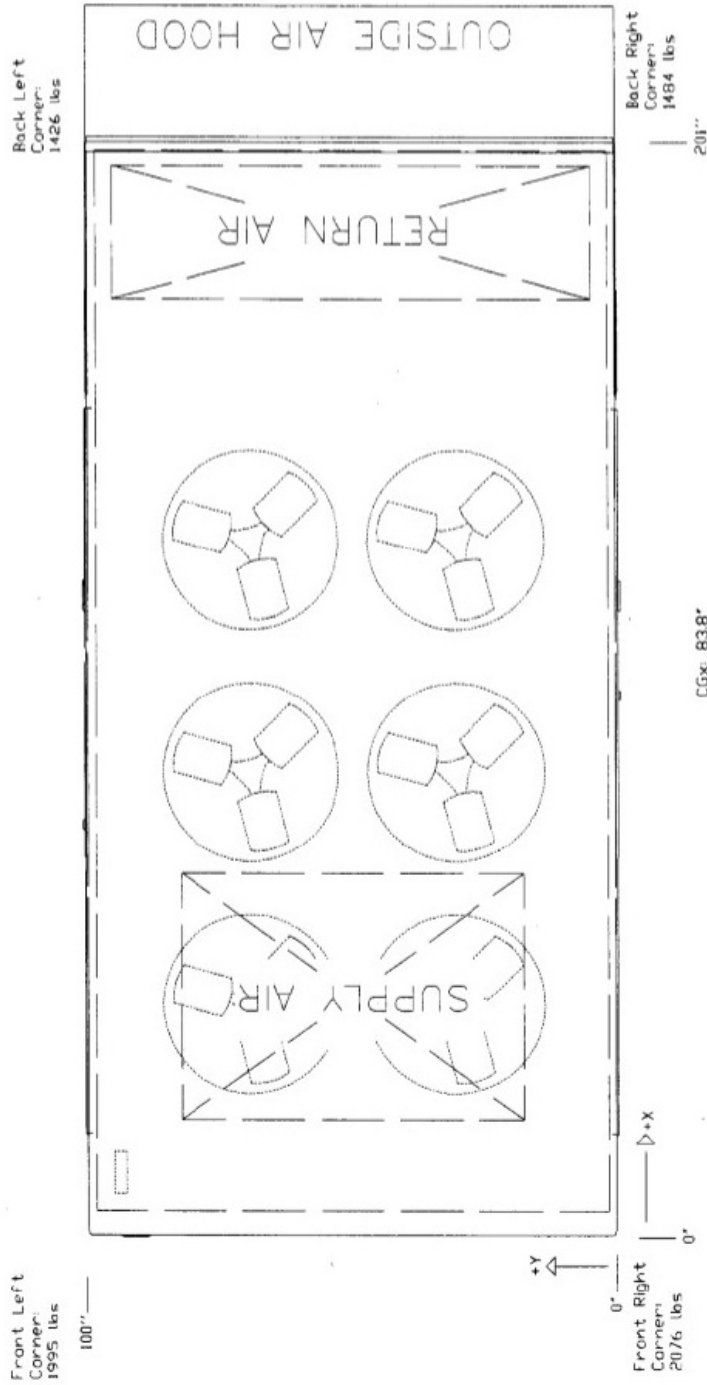


ALL DIMENSIONS ARE IN INCHES



RND CABINET
AIR COOLED CONDENSING UNIT
POWER RETURN

RN-050-3-0-EB09-196:CEHH-D00-FEH-AF0-000CH0D-00-0000000AB



Disclaimer:
This weight estimate does not account for any SPAs.

Date Created/Modified: 4/10/2013 8:37:15 AM Using Ver 4.191 (OSNR 8091336)

Date Printed: 4/10/2013 8:53:39 AM



Unit Rating

2426 South Yukon Ave - Tulsa, Oklahoma 74107-2728 - Ph (918) 365-2266 Fax (918) 365-6094
AAONEzat32 Ver. 4.201 (SN: 6091536-B3LQ7GPW)

1A 1B 1C 1D 2 3 4 5A 5B 5C 6A 6B 6C 7 8 9 10 11 12 13 14A 14B 15 16 17 18 19 20 21 22 23
RN-040-3-0-EB09-196:CEHG-D00-FEH-AF0-000CH0D-00-0000000AB

Tag: RTU# 2

Job Information

Job Name:
 Job Number:
 Site Altitude: 0 ft
 Refrigerant R-410A

Unit Information

Approx. Op./Ship Weights: 6287 / 6287 lbs.
 Supply CFM/ESP: 14600 / 2 in. wg.
 Pre-Filter FV / Qty: 456.25 fpm / 8
 Final-Filter FV / Qty: 456.25 fpm / 8
 Return CFM/ESP/TSP: 14600 / 1.00 / 1.38 in. wg.
 Outside CFM: 1900
 Ambient Temperature: 100 °F DB / 75 °F WB
 Return Temperature: 78 °F DB / 64 °F WB

Static Pressure

External: 2.00 in. wg.
 Evaporator: 0.53 in. wg.
 Filters Clean: 0.55 in. wg.
 Dirt Allowance: 0 in. wg.

Economizer: 0.23 in. wg.
 Heating: 0.13 in. wg.
 Cabinet: 0.16 in. wg.
 Total: 3.61 in. wg.

Cooling Section

	Gross	Net
Total Capacity:	445.44	410.79 MBH
Sensible Capacity:	387.73	353.08 MBH
Latent Capacity:	57.71 MBH	
Mixed Air Temp:	80.86 °F DB	65.59 °F WB
Entering Air Temp:	80.86 °F DB	65.59 °F WB
Lv Air Temp (Coil):	55.75 °F DB	55.22 °F WB
Lv Air Temp (Unit):	57.93 °F DB	56.08 °F WB
Digital Comp. Capacity Ratio:	100%	
Supply Air Fan:	2 x 270D @ 6.24 BHP Ea.	
SA Fan RPM / Width:	1327 / 6.069"	
Return Air Fan:	1 x MW3505-20 @ 4.61 BHP Ea.	
RA Fan RPM / Pitch:	1711 / 20°	
Evaporator Coil:	31.9 ft ² / 6 Rows / 12 FPI	
Evaporator Face Velocity:	458.0 fpm	

Heating Section

PreHeat Type: Std (No Preheat)
 Heating Type: Electric Heat
 Heating CFM: 14600
 Total Capacity: 409.6 MBH
 OA Temp: 0.0 DB / -1.0 °F WB
 RA Temp: 70.0 °F DB / 58.0 °F WB
 Entering Air Temp: 60.9 °F DB / 52.8 °F WB
 Leaving Air Temp: 86.9 °F DB / 62.6 °F WB
 Input: 6 x 20.0 kW
 Heater Qty: 6
 Electric Heat FLA: 144.3

Rating Information

Cooling Capacity (MBH): 430.0
 Cooling EER: 10.2
 Cooling IEER: 12
 Rated in accordance with AHRI 340/360

Application EER @ Op. Conditions: 7.8

Electrical Data

Rating: 460/3/60
 Unit FLA: 183
 Minimum Circuit Amp: 193
 Maximum Overcurrent: 200

	Qty	HP	VAC	Phase	RPM	FLA	RLA
Compressor 1:	2		460	3			16.7
Compressor 2:	2		460	3			16.7
Condenser Fans:	4	0.75	460	1	1075	2.3	
Supply Fan:	2	10.00	460	3	1760	14.0	
Return Fan:	1	7.50	460	3	1760	11.0	

Cabinet Sound Power Levels*

Octave Bands:	63	125	250	500	1000	2000	4000	8000
Discharge LW(dB):	93	93	95	95	91	90	88	84
Return LW(dB):	94	95	87	85	88	87	84	81

*Sound power levels are given for informational purposes only. The sound levels are not guaranteed.



Unit Submittal

2425 South Yukon Ave. Tulsa, Oklahoma 74107-2728 - Ph: (918) 583-2266 Fax: (918) 583-6054
AAONLeat32 Ver. 4 2011 SN: 6091536-B3LQ7GFW)

1A 1B 1C 1D 2 3 4 5A 5B 5C 6A 6B 6C 7 8 9 10 11 12 13 14A 14B 15 16 17 18 19 20 21 22 23

RN-040-3-0-EB09-196:CEHG-D00-FEH-AF0-000CH0D-00-0000000AB

Tag: RTU# 2

Job Name:
Job Number:

Unit Submittal For:
Unit Submittal Date:

April 10, 2013

Base Option	Description
R Series	Roof Top Unit
N Generation	Ninth Generation
040 Unit Size	Forty
3 Voltage	480V/3Ø/60Hz
0 Interior Protection	Standard
E Refrigerant Style	R-410A Variable Capacity Scroll Compressor (VCC)
B Unit Configuration	Air-Cooled Cond. + 6 Row Evap. Coil
0 Coil Coating	Standard
9 Cooling/Heat Pump Staging	Modulating - 2 VCC + 2 On/Off Comp.
1 Heating Type	Electric Heat
9 Heating Designation	Heat 9 - 120 kW
6 Heating Staging	6 Stage

Feature Option	Description
C 1A. RAOA Section	Economizer + Power Return
E 1B. RAEA Blower Configuration	1 Blower + Premium Efficiency Motor + 1 VFD
H 1C. RAEA Blower	35.5" Direct Drive Axial Flow
G 1D. RAEA Blower Motor	7.5 hp - 1760 rpm
D 2. OA Control	Fully Modulating Actuator - Enthalpy Limit
0 3. Heat Options	Standard
0 4. Maintenance Options	Standard
F 5A. SA Blower Configuration	2 Blowers + Premium Efficiency Motors + 2 Motors on 1 VFD
E 5B. SA Blower	27" Direct Drive Backward Curved Flenum
H 5C. SA Motor	10 hp - 1760 rpm
A 6A. Pre Filter Type	2" Pleated Pre Filter - 30% Eff
F 6B. Unit Filter Type	4" Pleated - 68% Eff - MERV 11
0 6C. Filter Options	Standard
0 7. Refrigeration Control	Standard - Fixed 55°F Comp. Cooling Lock Out + 3 MTDR Comp. Off - Copeland Comfort Alert
0 8. Refrigeration Options	Standard
0 9. Refrigeration Accessories	Standard
C 10. Power Options	Power Switch - 225 amps
H 11. Safety Options	Remote Safety Shutdown Terminals
0 12. Controls	Standard
D 13. Special Controls	VAV Unit Controller - VAV Cool + CV Heat
0 14A. Preheat Configuration	Standard - None
0 14B. Preheat Sizing	Standard - None
0 15. Glycol Percent	Water or No WSHP
0 16. Interior Cabinet Options	Standard - Double Wall + R-18 Foam Insulation + Stainless Steel Drain Pan
0 17. Exterior Cabinet Options	Standard
0 18. Customer Code	Standard
0 19. Code Options	Standard - ETL U.S.A. Listing
0 20. Crating	Standard
0 21. Water-Cooled Cond	Standard - None
A 22. Control Vendors	Wattmaster Controls
B 23. Type	Standard - Includes AAON Gray Paint



VCMX Components

2425 South Yukon Ave - Tulsa, Oklahoma 74107-2758 - Ph: (918) 583-2266 Fax: (918) 583-0294
AAONEcot32 Ver. 4.201 (SN: 0091536-B3LQ5GFW)

1A 1B 1C 1D 2 3 4 5A 5B 5C 6A 6B 6C 7 8 9 10 11 12 13 14A 14B 15 16 17 18 19 20 21 22 23

RN-040-3-0-EB09-196:CEHG-D00-FEH-AF0-000CH0D-00-0000000AB

Tag: RTU# 2

Job Name:

VCMX For:

Job Number:

VCMX Date:

April 10, 2013

Hardware Included For VCMX Controller

Part #	Included Parts	Assigned Channel
V07150	VCMX Controller with EBUS	
P94320	Space Temp Sensor - Field Installed	MainController\AI1
R82890	Supply Air Temp Sensor - Field Installed	MainController\AI2
R82890	Return Air Temp Sensor	MainController\AI3
P87100	Duct Static Pressure Sensor	MainController\AI6
R81550	Outside Air Temp Sensor	MainController\AI4
R69190	VCMX Large Expansion Module	
R34700	Outside Air Humidity Sensor	LargeExpansionModule\AI1
P62520	Proof of Flow Sensor	LargeExpansionModule\BI3
R69180	VCMX Relay Expansion Module	

		1	2	3	4	5	6	7
VCMX Controller with EBUS	Analog In	X	X	X	X			X
	Analog Out	X	X					
	Binary In							
	Relay Out	X	X	X	X	X		
	Digital Sensor(s)							

		1	2	3	4	5	6	7	8
VCMX Large Expansion Module	Analog In	X							
	Analog Out			X					
	Binary In	X	X						
	Relay Out	X	X	X	X				

		1	2	3	4	5	6	7	8	9	10	11	12
VCMX Relay Expansion Module	Analog In												
	Analog Out												
	Binary In												
	Relay Out	X	X	X									

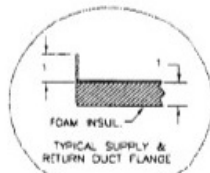
RN UNITS 26-70 TON AAON®

WITH ECONOMIZER AND POWER RETURN

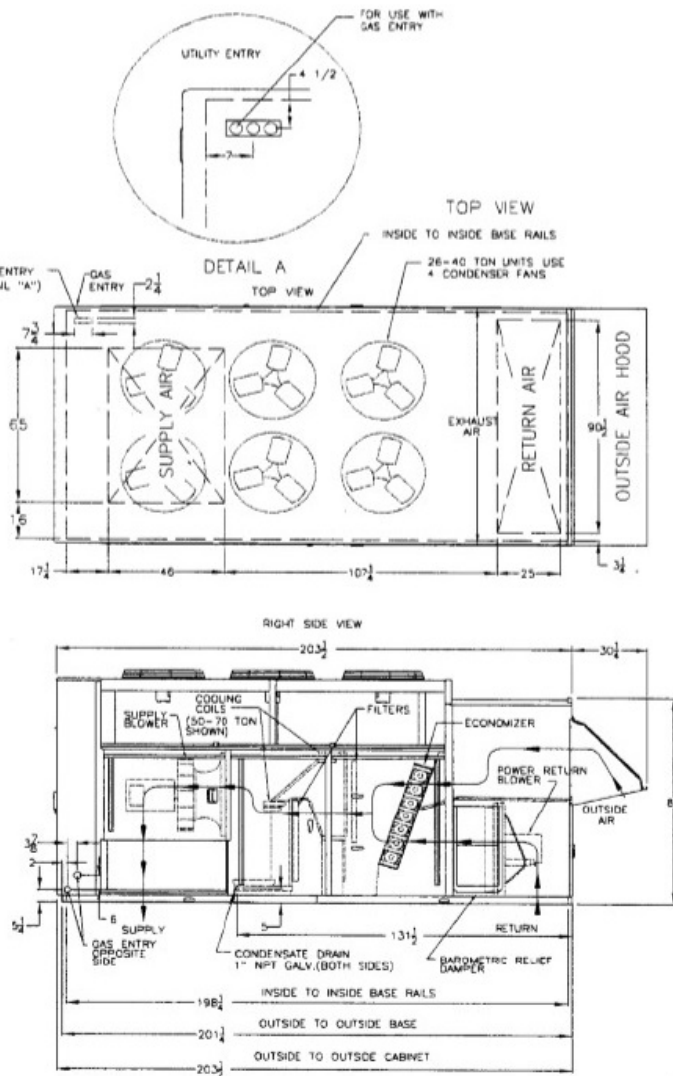
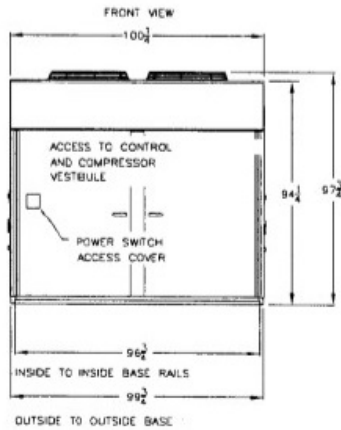
CLEARANCES	
LOCATION	UNIT SIZE
	26-70 TON
OUTSIDE AIR (BACK)	48
CONTROLS SIDE (FRONT)	48
LEFT SIDE	48
RIGHT SIDE	70
TOP	UNOBSTRUCTED

NOTE: RIGHT AND LEFT SIDE UNIT CLEARANCES ARE INTERCHANGEABLE ON UNITS THAT DO NOT HAVE THE HYDRONIC HEATING OPTION. UNITS WITH HYDRONIC HEAT MUST HAVE 70" RIGHT SIDE ACCESS FOR SERVICE.

NOTE: 26-40 TON UNITS INCLUDES A SINGLE COOLING COIL. 50-70 TON UNIT INCLUDE TWO COOLING COILS.



DETAIL B



RND-00049 REV.A 07/24/08 S/S

ALL DIMENSIONS ARE IN INCHES

RND CABINET
 AIR COOLED CONDENSING UNIT
 POWER RETURN

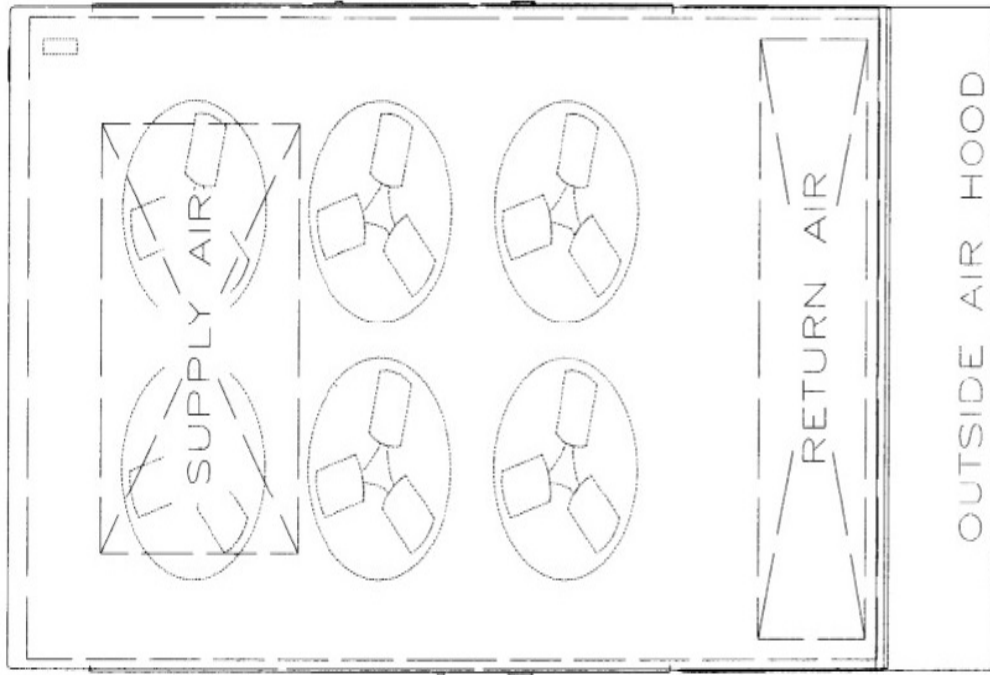


RN-040-3-0-EB09-196-CEHG-D00-FEH-AF0-000CH0D-00-0000000AB

Front Left
 Corner:
 1801 lbs

Back Left
 Corner:
 1271 lbs

100"



Front Right
 Corner:
 1885 lbs

Back Right
 Corner:
 1330 lbs

0"

+Y
 +X

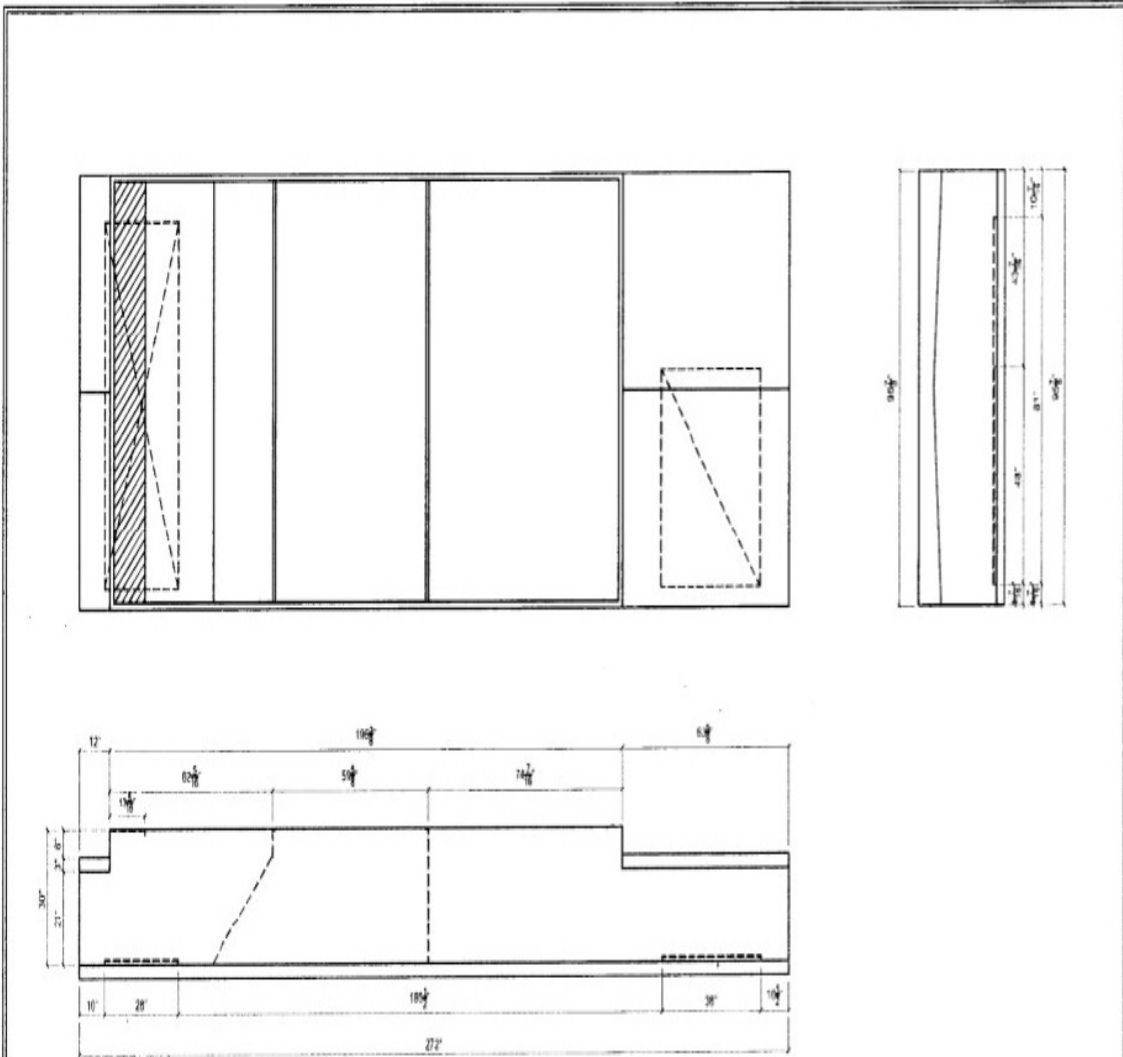
0"

201"

CGx: 83.1"
 CGy: 48.7"

Total Weight:
 6287 lbs

Disclaimer:
 This weight estimate does not account for any SPAs.



Notes:

- 14 Gauge Galvanized Steel Construction
- Fully Welded Corners and Seams Coated w/ Anti-Corrosion Sealant
- 1 1/2", 3 Lb Rigid Fiberboard Insulation
- Fully Transitioned S/A & R/A
- Internal Bulkheads Every 24" Along the Perimeter
- Insulated Condenser Pan
- Equipped w/ Welded In Place and Reinforced Lifting Lugs

****Preliminary Drawing** Field Verification of Existing Curb Required**

Units: RPS043CSA to new R0-040 Extended Cabinet	
DWG#: 10023	
Qty: _____	
Job#: _____	
Ship Date: _____	
Drawn by: _____	
Shop Use Only: _____	
Date: _____	Welded By: _____
Start Time: _____	Finish Time: _____

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