



Unit Rating

2425 South Yukon Ave - Tulsa, Oklahoma 74107-2728 - Ph. (918) 583-2266 Fax (918) 583-6094
AAONEcat32 Ver. 4.208 (SN: 5432592-35SQDSYE)

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-040-8-A-EA99-000:L000-E00-DDQ-00A-0HFCHE-00-0000000CX

Tag: RTU# 1

(Values do not account for changes described in SPA)

Job Information

Job Name: Altatmonte Springs Therapy Pool
Job Number: Job #78
Site Altitude: 0 ft
Refrigerant: R-410A

Static Pressure

External: 1.25 in. wg.
Evaporator: 0.13 in. wg.
Filters Clean: 0.07 in. wg.
Dirt Allowance: 0.35 in. wg.

Cooling Section

	Gross	Net
Total Capacity:	390.16	383.22 MBH
Sensible Capacity:	221.12	214.18 MBH
Latent Capacity:	169.04 MBH	
Mixed Air Temp:	86.48 °F DB	72.11 °F WB
Entering Air Temp:	86.48 °F DB	72.11 °F WB
Lv Air Temp (Coil):	47.39 °F DB	47.19 °F WB
Lv Air Temp (Unit)	48.56 °F DB	47.73 °F WB
Digital Comp. Capacity Ratio:	100%	
Supply Air Fan:	1 x 245D @ 2.41 BHP	
SA Fan RPM / Width:	1163 / 5.480"	
Evaporator Coil:	31.9 ft² / 4 Rows / 14 FPI	
Evaporator Face Velocity:	169.4 fpm	

Rating Information

Cooling Capacity (MBH): 420.0
Cooling EER: 10.1
Cooling IEER: 11.7

Rated in accordance with AHRI 340/360

Application EER @ Op. Conditions: 9.4

Electrical Data

Rating: 208/3/60
Unit FLA: 145

Minimum Circuit Amp: 152
Maximum Overcurrent: 175

	Qty	HP	VAC	Phase	RPM	FLA	RLA
Compressor 1:	2		208	3			30.1
Compressor 2:	2		208	3			30.1
Condenser Fans:	4	0.75	208	3	1075	3.4	
Supply Fan:	1	3.00	208	3	1170	10.6	

Cabinet Sound Power Levels*

Octave Bands:	63	125	250	500	1000	2000	4000	8000
Discharge LW(dB):	85	84	89	90	87	84	78	72
Return LW(dB):	78	73	71	64	65	62	57	48

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

Unit Information

****WEIGHT AND PERFORMANCE DO NOT INCLUDE SPA**

Approx. Op./Ship Weights: 4834 / 4834 lbs.
Supply CFM/ESP: 5400 / 1.25 in. wg.
Final-Filter FV / Qty: 168.75 fpm / 8
Outside CFM: 800
Ambient Temperature: 95 °F DB / 78 °F WB
Return Temperature: 85 °F DB / 71 °F WB

Economizer: 0.04 in. wg.
Heating: 0.00 in. wg.
Cabinet: 0.02 in. wg.
Re-Heat Coil: 0.01 in. wg.
Total: 1.87 in. wg.

Heating Section

PreHeat Type: Std (No Preheat)
Heating Type: No Heat

Re-Heat Coil:

Capacity: 190 MBH
LA DB / WB: 80.00 °F / 60.54 °F
RH: 31%



24.5" STAR Plenum

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JOB INFORMATION:

Job Name: Altatmonte Springs Therapy
Job Tag: Pool
Rep Firm: RTU# 1
Date: 09/18/2013

WHEEL SPECIFICATION:

Max RPM: 1,800
Diameter x Qty: 24.5 in. x 1
CFM: 5400
Tip Speed: 5400
Inertia: 7,460 FPM
10 WR²

OPERATING CONDITIONS:

Air Flow: 5,400 CFM
Static Pressure: 1.87 in. Wg.
Relief Dampers DP: 0.00 in. Wg.

TSP: 1.87 in. Wg.
Site Altitude: 0.00 Ft
TSP @ Sea Level: 1.87 in. Wg.

MOTOR SELECTION:

Rated HP / Bypass: 3 / No
Frame Size: 213T
Nominal RPM: 1170
VAC/PH/HZ: 208/3/60
Efficiency: Premium / 0.885
Enclosure Type: ODP
Max Inertial Load: 85 WR²

FAN PERFORMANCE:

RPM: 1163
BHP: 2.41
Efficiency: 65.9%
In/Out Velocity: 1651/1818 FPM
Plenum Out Velocity: 61 FPM

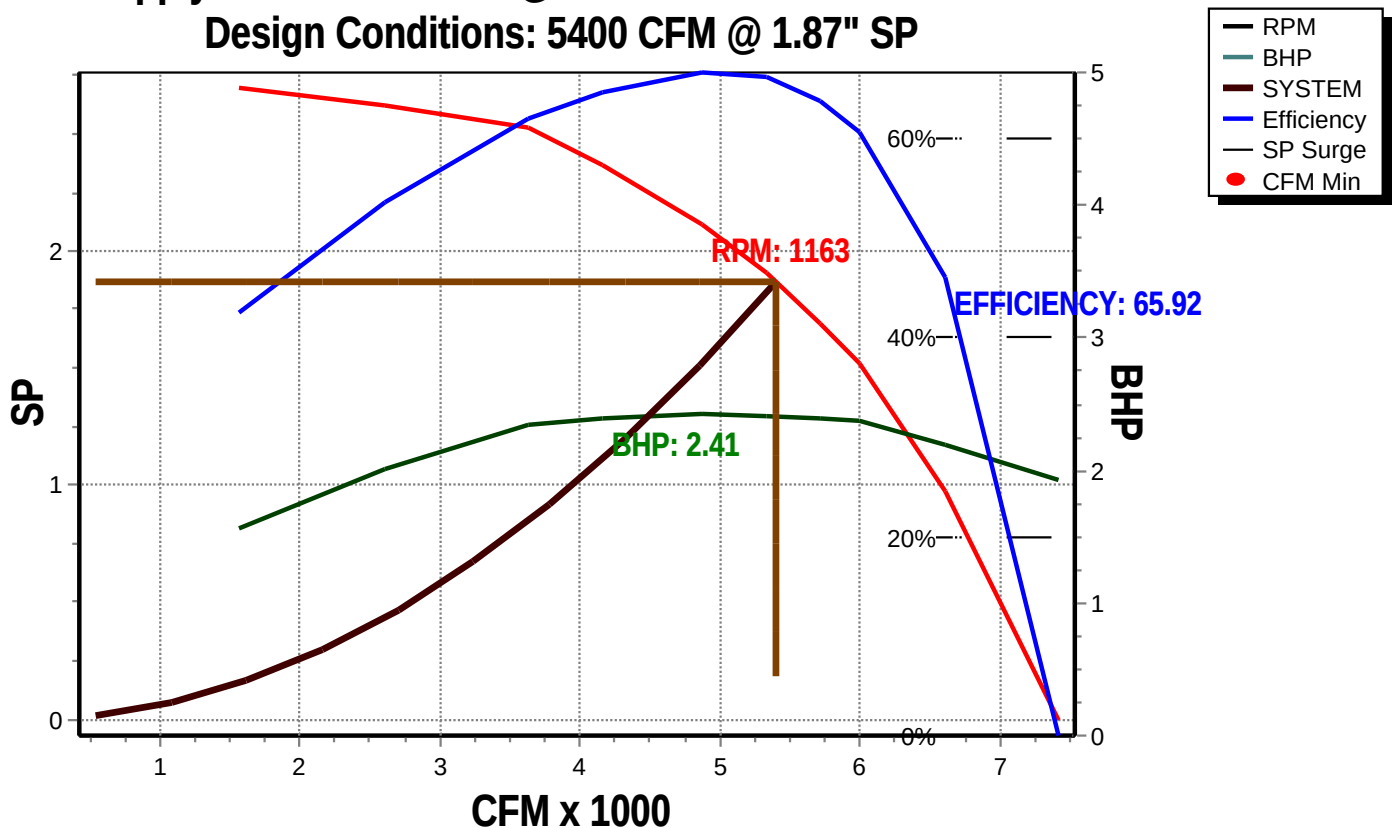
FAN SOUND POWER (Inlet/Outlet):

Octave Band:		(Re 10 ⁻¹² watts)					
1	2	3	4	5	6	7	8
85	84	84	82	80	79	77	73
85	84	89	91	90	87	82	76

SOUND POWER A-Weighted: 88 / 93 dB

Max Duct SP with Blocked Airway: 2.7 in. Wg. @ 1163 rpm

Supply Fan Model: 245D @ 1163 RPM and 100% Width Design Conditions: 5400 CFM @ 1.87" SP





Unit Submittal

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Tag: RTU# 1

Job Name:
Job Number:

Altatmonte Springs Therapy Pool
Job #78

Unit Submittal For:
Unit Submittal Date:

February 18, 2013

	Base Option	Description
R	Series	Roof Top Unit
N	Generation	Ninth Generation
040	Unit Size	Forty
8	Voltage	208V/3Ø/60Hz
A	Interior Protection	Interior Corrosion Protection
E	Refrigerant Style	R-410A Variable Capacity Scroll Compressor (VCC)
A	Unit Configuration	Air-Cooled Cond. + Std Evap. Coil
9	Coil Coating	Polymer E-Coated Cooling Coil
9	Cooling/Heat Pump Staging	Modulating - 2 VCC + 2 On/Off Comp.
0	Heating Type	No Heating
0	Heating Designation	No Heating
0	Heating Staging	No Heating

	Feature Option	Description
L	1A. RA/OA Section	Motorized OA Dampers + RA Opening
0	1B. RA/EA Blower Configuration	Standard - None
0	1C. RA/EA Blower	Standard - None
0	1D. RA/EA Blower Motor	Standard - None
E	2. OA Control	DDC Actuator
0	3. Heat Options	Standard
0	4. Maintenance Options	Standard
D	5A. SA Blower Configuration	1 Blower + Premium Efficiency Motor + 1 VFD
D	5B. SA Blower	24" Direct Drive Backward Curved Plenum
Q	5C. SA Motor	3.0 hp - 1170 rpm
0	6A. Pre Filter Type	Standard - None
0	6B. Unit Filter Type	2" Pleated - 30% Eff
A	6C. Filter Options	Clogged Filter Switch
0	7. Refrigeration Control	Standard - Fixed 55°F Comp. Cooling Lock Out + 3 MTDR Comp. Off - Copeland Comfort Alert
H	8. Refrigeration Options	HGB Lag + MHGR
F	9. Refrigeration Accessories	VFD Condenser Fan - Variable Speed
C	10. Power Options	Power Switch - 225 amps
H	11. Safety Options	Remote Safety Shutdown Terminals
B	12. Controls	Phase & Brown Out Protection
E	13. Special Controls	Constant Volume (CV) Unit Controller - CV 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
C	22. Control Vendors	Wattmaster Controls w/ Specials
X	23. Type	Special Price Authorization + AAON Gray Paint



VCMX Components

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Tag: RTU# 1

Job Name:

Altatmonte Springs

VCMX For:

Therapy Pool

Job Number:

Job #78

VCMX Date:

February 18, 2013

Hardware Included For VCMX Controller

Part #	Included Parts	Assigned Channel
V07150	VCMX Controller with EBUS	
R28390	Suction Pressure Transducer	MainController\AI5
P94320	Space Temp Sensor - Field Installed	MainController\AI1
R82890	Supply Air Temp Sensor - Field Installed	MainController\AI2
R81550	Outside Air Temp Sensor	MainController\AI4
R69190	VCMX Large Expansion Module	
P62520	Proof of Flow Sensor	LargeExpansionModule\BI3
P62520	Dirty Filter Sensor	LargeExpansionModule\BI2
R34690	Space Humidity Sensor - Field Installed	LargeExpansionModule\AI2
R34650	Return Air Humidity Sensor	LargeExpansionModule\AI2
R34690	Space Humidity Sensor - Field Installed	LargeExpansionModule\AI2

		1	2	3	4	5	6	7
VCMX Controller with EBUS	Analog In	X	X		X	X		
	Analog Out	X	X					
	Binary In							
	Relay Out	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	X					
	Relay Out								

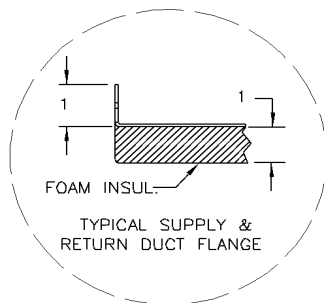
SPA #	SPA Description
VCM0019	This option provides a 0-10 V output to control a remote reheat source Required Parts: This SPA provides a space humidity sensor and compressor suction transducer if needed.

100% OUTSIDE AIR
MANUAL FRESH AIR
MOTORIZED OUTSIDE AIR

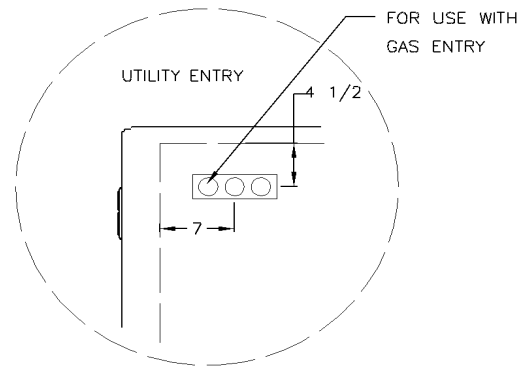
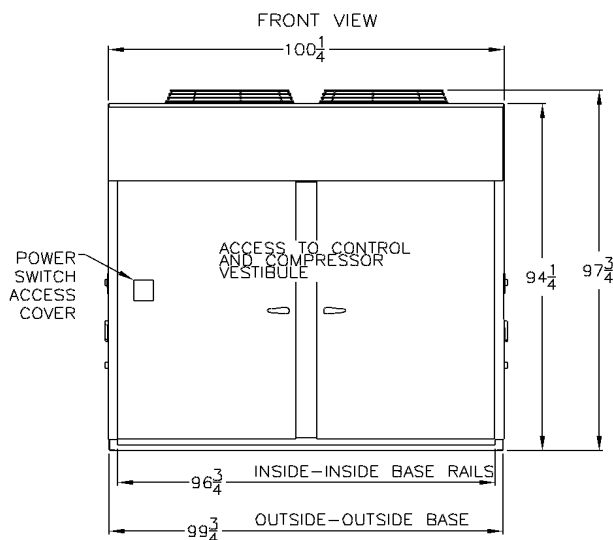
CLEARANCES	
LOCATION	UNIT SIZE
	26-70 TON
RETURN AIR BACK	48
VENT SIDE FRONT	48
LEFT SIDE	48
RIGHT SIDE	70
TOP	UNOBSTRUCTED

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.)

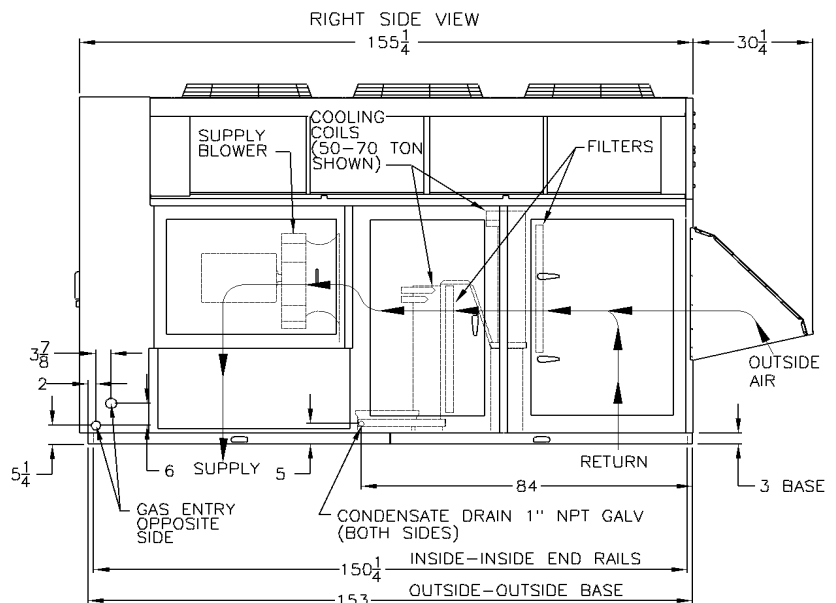
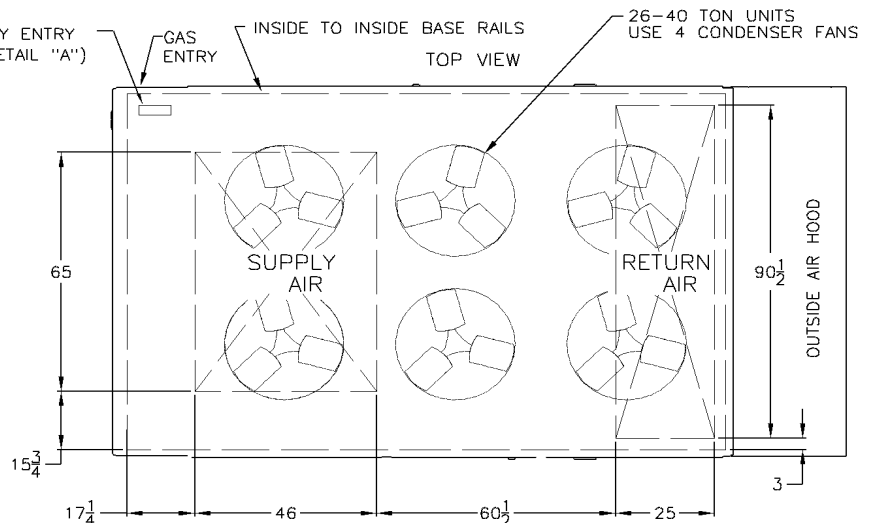
NOTE: 26-40 TON UNITS INCLUDES A SINGLE COOLING COIL. 50-70 TON UNIT INCLUDE TWO COOLING COILS.



DETAIL B



DETAIL A



RND CABINET AIR COOLED CONDENSING UNIT

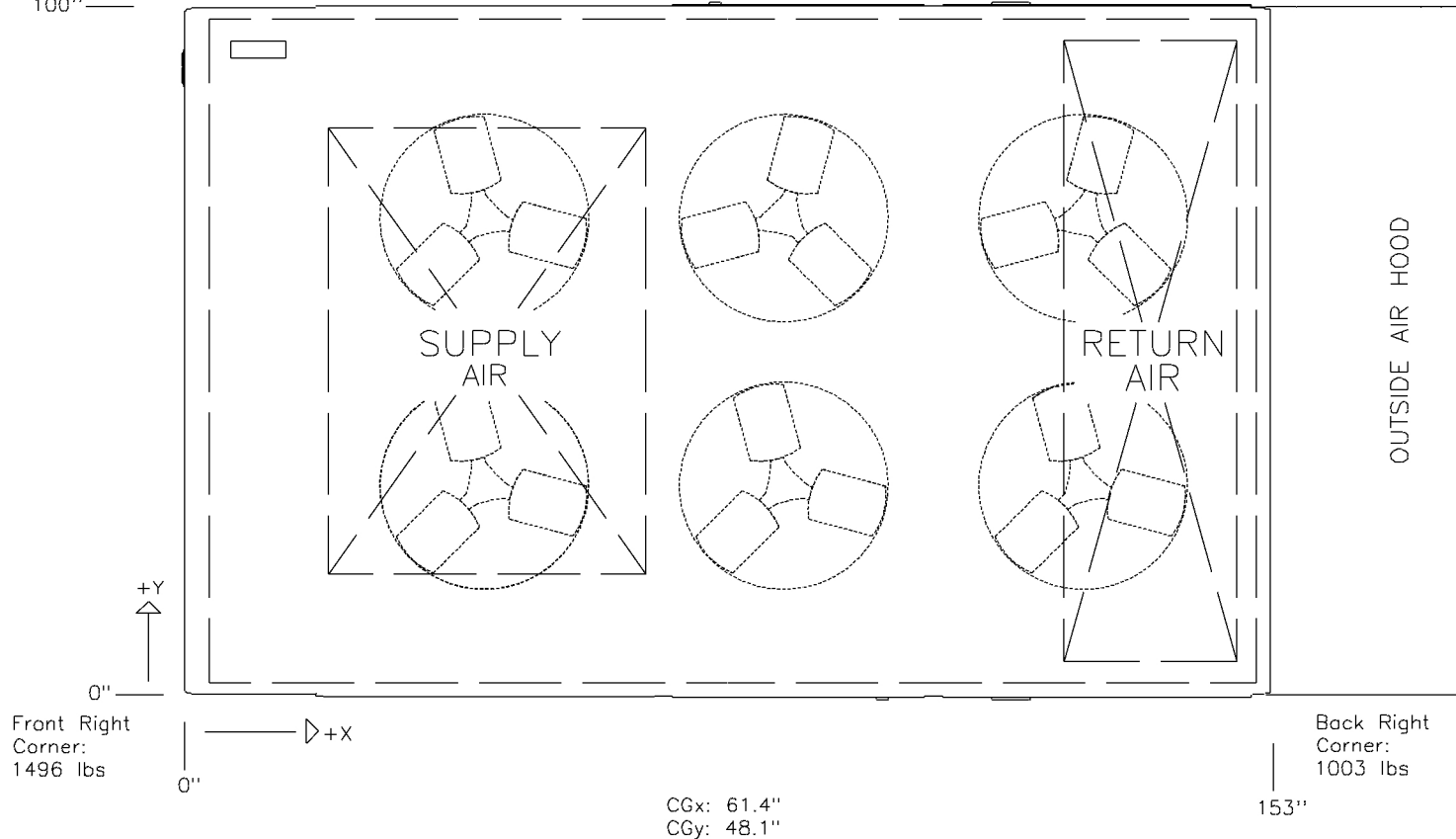


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Front Left
Corner:
1398 lbs

Back Left Corner:
937 lbs

100"



CGx: 61.4"
CGy: 48.1"

Total Weight:
4834 lbs

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