

Report By:

National TAB
1329 E. KEMPER ROAD
SUITE 4210
CINCINNATI, OH 45246



Report: TAB REPORT
Function: Test, Adjust, & Balance
Date: 09/12/2024

PROJECT
Rally House West Chester

7676 Voice of American Centre Dr

West Chester, OH 45069

Client

Design Comfort Heating and Air LLC
8063 Production Dr.
Florence, KY 41042

National TAB

Project: Rally House West Chester

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National TAB

Project: Rally House West Chester
System/Unit: AHU/RTU



Asset: RTU-1

AREA:

Unit Data		
	Design	Actual
MFG	NA	CARRIER
Serial Num	-	4721P03852
Model Num	NA	48TCED16H2M5
Configuration	-	VERTICAL
Num OA Filters 1	-	2
OA Filter Size 1	-	23.5"X27"
Num PreFilter 1	-	6
PreFilter Size 1	-	16"X25"X2"

Test Data		
	Design	Actual
SF CFM	5005	3087
SF RPM	-	604
RA CFM	3865	2116
OA CFM	1140	982
RL Voltage	-	205.4/205.1/205.3
RL Amperage	-	9.89/9.81/9.65
OA Damper Position	-	4.35 VDC

Motor Data		
	Design	Actual
Motor MFG	-	MARATHON
Frame	-	56HZ
Motor Rpm	-	1750
Phase	-	3
Rated Voltage	-	208
Rated Amperage	-	10.8
Service Factor	-	1.15

Performance Data		
	Design	Actual
MA Plenum SP	-	-1.27"
Fan Suction SP	-	-1.52"
Fan Discharge SP	-	0.64"
Total ESP	-	1.91"
Fan Total SP	-	2.16"

Drive Data	
	Actual
Motor Sheave Size	4.5"
Motor Bore Size	0.875"
Motor Sheave SetPt	1 TURN OUT
Fan Sheave Size	BK80X1 3/16
Fan Sheave Bore	BK80X1 3/16
Belt CL Distance	21"
Num of Belts	1
Belt Size	BX56

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Notes:

- . AMPS READ WITH FAN DOOR OPEN
- . HIGH SPEED DOES NOT ENABLE WHEN CALLED FOR, UNABLE TO GET UNIT INTO HIGHEST SPEED

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Project: Rally House West Chester

AHU/RTU



Diffuser Supply (GRD)

RTU-1/

Asset						
Asset Name	Location	Type	DESIGN CFM	CFM(1)	FINAL CFM	% to design
1-1	SALES FLOOR	S1	450	156	179	39.8
1-2	SALES FLOOR	S1	500	182	209	41.8
1-3	SALES FLOOR	S1	270	145	166	61.5
1-4	SALES FLOOR	S1	450	188	216	48.0
1-5	SALES FLOOR	S1	265	187	215	81.1
1-6	SALES FLOOR	S1	400	169	194	48.5
1-7	SALES FLOOR	S1	400	204	234	58.5
1-8	SALES FLOOR	S1	270	141	162	60.0
1-9	SALES FLOOR	S1	450	262	301	66.9
1-10	SALES FLOOR	S1	450	243	279	62.0
1-11	SALES FLOOR	S1	450	335	385	85.6
1-12	SALES FLOOR	S1	100	67	77	77.0
1-13	SALES FLOOR	S1	100	66	76	76.0
1-14	SALES FLOOR	S1	100	120	138	138.0
1-16	SALES FLOOR	S1	350	223	256	73.1
Total			5005	2688	3087	61.68%

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Project: Rally House West Chester
System/Unit: AHU/RTU



Asset: RTU-2

AREA:

Unit Data		
	Design	Actual
MFG	NA	CARRIER
Serial Num	-	4721P91417
Model Num	NA	48TCED12H2M5
Configuration	-	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	36"X21"
Num PreFilter 1	-	4
PreFilter Size 1	-	20"X20"X2"

Test Data		
	Design	Actual
SF CFM	3500	3339
SF RPM	-	837
RA CFM	2960	2747
OA CFM	540	592
RL Voltage	-	203.7/204.2/204.8
RL Amperage	-	9.25/9.85/9.53
OA Damper Position	-	3 VDC

Motor Data		
	Design	Actual
Motor MFG	-	MARATHON
Frame	-	56HZ
Motor Rpm	-	1750
Phase	-	3
Rated Voltage	-	230
Rated Amperage	-	9.2
Service Factor	-	1.15

Performance Data		
	Design	Actual
MA Plenum SP	-	-1.22"
Fan Suction SP	-	1.57"
Fan Discharge SP	-	0.51"
Total ESP	-	1.73"
Fan Total SP	-	2.08"

Drive Data	
	Actual
Motor Sheave Size	4.5"
Motor Bore Size	0.875"
Motor Sheave SetPt	2 TURNS OUT
Fan Sheave Size	AK74-1
Fan Sheave Bore	AK74-1
Belt CL Distance	16.5"
Num of Belts	1
Belt Size	A49

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Notes:
. AMPS READ WITH FAN DOOR OPEN

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National TAB
 Project: Rally House West Chester
AHU/RTU



Diffuser Supply (GRD)

RTU-2/

Asset						
Asset Name	Location	Type	DESIGN CFM	CFM(1)	FINAL CFM	% to design
2-1	SALES FLOOR	S1	350	223	329	94.0
2-2	SALES FLOOR	S1	250	167	255	102.0
2-3	SALES FLOOR	S1	260	193	287	110.4
2-4	SALES FLOOR	S1	260	199	290	111.5
2-5	SALES FLOOR	S1	300	210	308	102.7
2-6	SALES FLOOR	S1	300	211	309	103.0
2-7	SALES FLOOR	S1	260	164	243	93.5
2-8	SALES FLOOR	S1	360	178	325	90.3
2-10	SALES FLOOR	S1	210	183	194	92.4
2-11	RESTROOM	S1	50	32	50	100.0
2-12	SALES FLOOR	S1	450	261	427	94.9
2-13	RESTROOM	S1	50	20	54	108.0
2-14	SALES FLOOR	S1	125	97	138	110.4
2-15	SALES FLOOR	S1	125	93	130	104.0
Total			3350	2231	3339	99.67%

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Project: Rally House West Chester
System/Unit: AHU/RTU



Asset: RTU-3

AREA:

Unit Data		
	Design	Actual
MFG	NA	CARRIER
Serial Num	-	4221C09097
Model Num	NA	48FCEA06H2M5
Configuration	-	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	29.5"X15.5"
Num PreFilter 1	-	2
PreFilter Size 1	-	20"X25"X2"

Motor Data		
	Design	Actual
Phase	-	1
Rated Voltage	-	208
Rated Amperage	-	8.6

Test Data		
	Design	Actual
SF CFM	2000	1932
SF RPM	-	9.30 VDC
RA CFM	1755	1693
OA CFM	245	239
RL Voltage	-	206.3/207.3/206.1
RL Amperage	-	7.80/7.88/7.78
OA Damper Position	-	3.85 VDC

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.90"
Fan Suction SP	-	-1.19"
Fan Discharge SP	-	0.49"
Total ESP	-	1.39"
Fan Total SP	-	1.68"

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Project: Rally House West Chester
AHU/RTU



Diffuser Supply (GRD)

RTU-3/

Asset						
Asset Name	Location	Type	DESIGN CFM	CFM(1)	FINAL CFM	% to design
3-1	BOH	S1	300	304	304	101.3
3-2	BOH	S1	300	302	302	100.7
3-3	BOH	S1	300	287	287	95.7
3-4	BOH	S1	350	335	335	95.7
3-5	BOH	S1	300	297	297	99.0
3-6	BOH	S1	300	262	262	87.3
3-7	BOH	S1	50	71	48	96.0
3-8	BOH	S1	100	74	97	97.0
Total			2000	1932	1932	96.6%

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