

Report By:

**National TAB
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**Report: PRELIM
Function: Test, Adjust, & Balance
Date: 04/04/2024**

PROJECT
LHM Dodge RTU Repl (Albuquerque, NM)

8528 Lomas Blvd NE

Albuquerque, NM 87110

Client

Metro Air Conditioning
8151 McCoy
Shawnee, KS 66227

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Project: LHM Dodge RTU Repl (Albuquerque, NM)

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Project: LHM Dodge RTU Repl (Albuquerque, NM)

System/Unit: AHU/RTU



Asset: RTU-1

AREA:SERVICE RECEIVING

Unit Data		
	Design	Actual
MFG	LENNOX	LENNOX
Serial Num	-	5623K02758
Model Num	KGC092S4M	KGC180S4M
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	3
OA Filter Size 1	-	13X23.25
Num PreFilter 1	-	6
PreFilter Size 1	-	24X24X2

Test Data		
	Design	Actual
SF CFM	6000	6144
SF RPM	801	726
RA CFM	5400	5522
OA CFM	600	622
RL Voltage	460	485/485/485
RL Amperage	4.8	3.4/3.4/3.5
OA Damper Position	-	4.1 V (22%)
Brake Horse Power	-	2.15

Motor Data		
	Design	Actual
Horsepower	3.0	3.0
Motor Rpm	-	1750
Phase	3	3
Rated Voltage	460	460
Rated Amperage	4.8	4.8
Service Factor	-	1.15

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.29
Fan Suction SP	-	0.49"
Fan Discharge SP	-	0.38"
Total ESP	0.75	0.67"
Fan Total SP	0.85	0.87"

Drive Data		
	Design	Actual
Motor Sheave Size	-	1VL40
Motor Bore Size	-	7/8"
Motor Sheave SetPt	-	5.5 TURNS OPEN
Fan Sheave Size	-	BK72
Fan Sheave Bore	-	1"
Belt CL Distance	-	20.5"
Num of Belts	-	1
Belt Size	-	BX55

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Notes:

[1] RTU SUPPLY IS INFLATING ROOF MEMBRANE; SEE ISSUE. SUSPECT LEAKAGE AT CURB CONNECTION.

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Project: LHM Dodge RTU Repl (Albuquerque, NM)

System/Unit: AHU/RTU



Asset: RTU-2

AREA:SERVICE SHOP WEST

Unit Data		
	Design	Actual
MFG	LENNOX	LENNOX
Serial Num	-	5623J05383
Model Num	KGC092S4M	KGC240S4M
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	3
OA Filter Size 1	-	13.25X23
Num PreFilter 1	-	6
PreFilter Size 1	-	24X24X2

Test Data		
	Design	Actual
SF CFM	8000	7452
SF RPM	952	987
RA CFM	7200	6671
OA CFM	800	781
RL Voltage	460	485/487/488
RL Amperage	-	7.6/7.7/8.2
OA Damper Position	-	3.8V (19%)
Brake Horse Power	-	5.93

Motor Data		
	Design	Actual
Motor MFG	-	BALDOR-RELIANCE
Frame	-	213T
Horsepower	7.5	7.5
Motor Rpm	-	1770
Phase	3	3
Rated Voltage	460	460
Rated Amperage	9.9	9.9
Service Factor	-	1.15

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.58"
Fan Suction SP	-	-0.95"
Fan Discharge SP	-	0.21"
Total ESP	0.75	0.79"
Fan Total SP	1.08	1.16"

Drive Data		
	Design	Actual
Motor Sheave Size	-	1VP65
Motor Bore Size	-	1-3/8"
Motor Sheave SetPt	-	2 TURNS OPEN
Fan Sheave Size	-	BK110H
Fan Sheave Bore	-	1-3/16"
Belt CL Distance	-	21.25"
Num of Belts	-	1
Belt Size	-	BX66

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Project: LHM Dodge RTU Repl (Albuquerque, NM)

System/Unit: AHU/RTU



Asset: RTU-3

AREA:SERVICE SHOP CENTER

Unit Data		
	Design	Actual
MFG	LENNOX	LENNOX
Serial Num	-	5623J05384
Model Num	KGC092S4M	KGC240S4M
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	3
OA Filter Size 1	-	13.25X23
Num PreFilter 1	-	6
PreFilter Size 1	-	24X24X2

Test Data		
	Design	Actual
SF CFM	8000	7637
SF RPM	952	960
RA CFM	7200	6818
OA CFM	800	819
RL Voltage	460	486/485/486
RL Amperage	-	7.5/7.3/7.7
OA Damper Position	-	3.4V
Brake Horse Power	-	5.68

Motor Data		
	Design	Actual
Motor MFG	-	BALDOR-RELIANCE
Frame	-	213T
Horsepower	7.5	7.5
Motor Rpm	-	1770
Phase	3	3
Rated Voltage	460	460
Rated Amperage	9.9	9.9
Service Factor	-	1.15

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.62"
Fan Suction SP	-	-1.02"
Fan Discharge SP	-	0.19"
Total ESP	0.75	0.81"
Fan Total SP	1.08	1.21"

Drive Data		
	Design	Actual
Motor Sheave Size	-	1VP65
Motor Bore Size	-	1-3/8"
Motor Sheave SetPt	-	3 TURNS OPEN
Fan Sheave Size	-	BK110H
Fan Sheave Bore	-	1-3/16"
Belt CL Distance	-	21"
Num of Belts	-	1
Belt Size	-	BX66

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Project: LHM Dodge RTU Repl (Albuquerque, NM)

System/Unit: AHU/RTU



Asset: RTU-4

AREA:SERVICE SHOP EAST

Unit Data		
	Design	Actual
MFG	LENNOX	LENNOX
Serial Num	-	5623J05385
Model Num	KGC092S4M	KGC240S4M
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	3
OA Filter Size 1	-	13.25X23
Num PreFilter 1	-	6
PreFilter Size 1	-	24X24X2

Test Data		
	Design	Actual
SF CFM	8000	7543
SF RPM	952	959
RA CFM	7200	6769
OA CFM	800	774
RL Voltage	460	486/486/485
RL Amperage	-	7.2/7.2/7.5
OA Damper Position	-	3.6V
Brake Horse Power	-	5.53

Motor Data		
	Design	Actual
Motor MFG	-	BALDOR-RELIANCE
Frame	-	213T
Horsepower	7.5	7.5
Motor Rpm	-	1770
Phase	3	3
Rated Voltage	460	460
Rated Amperage	9.9	9.9
Service Factor	-	1.15

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.65"
Fan Suction SP	-	-1.05"
Fan Discharge SP	-	0.21"
Total ESP	0.75	0.86"
Fan Total SP	1.08	1.26"

Drive Data		
	Design	Actual
Motor Sheave Size	-	1VP65
Motor Bore Size	-	1-3/8"
Motor Sheave SetPt	-	3 TURNS OPEN
Fan Sheave Size	-	BK110H
Fan Sheave Bore	-	1-3/16"
Belt CL Distance	-	21.5"
Num of Belts	-	1
Belt Size	-	BX66

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Project: LHM Dodge RTU Repl (Albuquerque, NM)

System/Unit: AHU/RTU



Asset: RTU-5

AREA:DETAILING

Unit Data		
	Design	Actual
MFG	LENNOX	LENNOX
Serial Num	-	5623K01363
Model Num	KGC092S4M	KGC092S4M
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	2
OA Filter Size 1	-	23X14.25
Num PreFilter 1	-	4
PreFilter Size 1	-	20X25X2

Test Data		
	Design	Actual
SF CFM	3000	3206
SF RPM	748	650
RA CFM	2700	2896
OA CFM	300	310
RL Voltage	-	489/489/488
RL Amperage	-	1.6/1.6/1.5
OA Damper Position	-	4.1V
Brake Horse Power	-	1.08

Motor Data		
	Design	Actual
Motor MFG	-	U.S. MOTORS
Frame	-	56 HZ
Horsepower	2.0	2.0
Motor Rpm	-	1750
Phase	3	3
Rated Voltage	460	460
Rated Amperage	2.9	2.9
Service Factor	-	1.15

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.19"
Fan Suction SP	-	-0.33"
Fan Discharge SP	-	0.30"
Total ESP	0.50	0.49"
Fan Total SP	0.73	0.63"

Drive Data		
	Design	Actual
Motor Sheave Size	-	1VP34
Motor Bore Size	-	7/8"
Motor Sheave SetPt	-	4 TURNS OPEN
Fan Sheave Size	-	6"
Fan Sheave Bore	-	1"
Belt CL Distance	-	20.5"
Num of Belts	-	1
Belt Size	-	AX54

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Project: LHM Dodge RTU Repl (Albuquerque, NM)

System/Unit: AHU/RTU



Asset: RTU-6

AREA:

Unit Data		
	Design	Actual
MFG	LENNOX	LENNOX
Serial Num	-	5623J06748
Model Num	KGC092S4M	KGC092S4M
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	2
OA Filter Size 1	-	14.25X23
Num PreFilter 1	-	4
PreFilter Size 1	-	20X25X2

Test Data		
	Design	Actual
SF CFM	3000	3189
SF RPM	748	680
RA CFM	2700	2902
OA CFM	300	287
RL Voltage	-	489/489/488
RL Amperage	-	1.7/1.7/1.7
OA Damper Position	-	3.8V
Brake Horse Power	-	1.26

Motor Data		
	Design	Actual
Motor MFG	-	BALDOR-RELIANCE
Frame	-	56 HZ
Horsepower	2.0	2.0
Motor Rpm	-	1750
Phase	3	3
Rated Voltage	460	460
Rated Amperage	2.7	2.7
Service Factor	-	1.15

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.20"
Fan Suction SP	-	-0.35"
Fan Discharge SP	-	0.30"
Total ESP	0.50	0.50"
Fan Total SP	0.73	0.65"

Drive Data		
	Design	Actual
Motor Sheave Size	-	1VP34
Motor Bore Size	-	7/8"
Motor Sheave SetPt	-	3.5 TURNS OPEN
Fan Sheave Size	-	6"
Fan Sheave Bore	-	1"
Belt CL Distance	-	21"
Num of Belts	-	1
Belt Size	-	AX54

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Project: LHM Dodge RTU Repl (Albuquerque, NM)

System/Unit: FAN - Exhaust



Asset: EF1

AREA:SHOP SERVICE WEST

Unit Data		
	Design	Actual
MFG	GREENHECK	GREENHECK
Model Num	CUBE-160-3	CUBE-240-7-1-34-X
Serial Num	-	23948419
Type	UPBLAST	UPBLAST

Motor Data		
	Design	Actual
Motor MFG	-	BALDOR-RELIANCE
Frame	-	56
Horsepower	0.75	0.75
Motor Rpm	1725	1725
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	13.8
Service Factor	-	1.00

Drive Data		
	Design	Actual
Motor Sheave Size	-	VP34S
Motor Bore Size	-	5/8"
Motor Sheave SetPt	-	2.5 TURNS OPEN
Fan Sheave Size	-	AK74
Fan Sheave Bore	-	1"
Belt CL Distance	-	8"
Num of Belts	-	1
Belt Size	-	A30

Test Data		
	Design	Actual
CFM	5400	5209
Fan RPM	667	662
RL Voltage	-	115
RL Amperage	-	10.0
Suction ESP	-	-0.182"
Discharge ESP	-	ATM
Total ESP	0.25	0.182"
Brake Horse Power	-	0.54

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Project: LHM Dodge RTU Repl (Albuquerque, NM)

System/Unit: FAN - Exhaust



Asset: EF2

AREA:SHOP SERVICE CENTER WEST

Unit Data		
	Design	Actual
MFG	GREENHECK	GREENHECK
Model Num	CUBE-160-3	CUBE-240-7-1-34-X
Serial Num	-	23948420
Type	UPBLAST	UPBLAST

Test Data		
	Design	Actual
CFM	5400	5417
Fan RPM	667	666
RL Voltage	-	115
RL Amperage	13.8	10.0
Suction ESP	-	-0.203"
Discharge ESP	-	ATM
Total ESP	0.25	0.203"
Brake Horse Power	-	0.54

Motor Data		
	Design	Actual
Motor MFG	-	BALDOR-RELIANCE
Frame	-	56
Horsepower	0.75	0.75
Motor Rpm	1725	1725
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	13.8
Service Factor	-	1.00

Drive Data		
	Design	Actual
Motor Sheave Size	-	VP34S
Motor Bore Size	-	5/8"
Motor Sheave SetPt	-	2.5 TURNS OPEN
Fan Sheave Size	-	AK74
Fan Sheave Bore	-	1"
Belt CL Distance	-	8"
Num of Belts	-	1
Belt Size	-	A30

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Project: LHM Dodge RTU Repl (Albuquerque, NM)

System/Unit: FAN - Exhaust



Asset: EF3

AREA:SHOP SERVICE CENTER EAST

Unit Data		
	Design	Actual
MFG	GREENHECK	GREENHECK
Model Num	CUBE-160-3	CUBE-240-7-1-34-X
Serial Num	-	23948421
Type	UPBLAST	UPBLAST

Test Data		
	Design	Actual
CFM	5400	5191
Fan RPM	667	721
RL Voltage	-	115
RL Amperage	13.8	12.0
Suction ESP	-	-0.20"
Discharge ESP	-	ATM
Total ESP	0.25	0.20"
Brake Horse Power	-	0.65

Motor Data		
	Design	Actual
Motor MFG	-	BALDOR-RELIANCE
Frame	-	56
Horsepower	0.75	0.75
Motor Rpm	1725	1725
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	13.8
Service Factor	-	1.0

Drive Data		
	Design	Actual
Motor Sheave Size	-	VP34S
Motor Bore Size	-	5/8"
Motor Sheave SetPt	-	1 TURN OPEN
Fan Sheave Size	-	AK74
Fan Sheave Bore	-	1"
Belt CL Distance	-	8"
Num of Belts	-	1
Belt Size	-	A30

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Project: LHM Dodge RTU Repl (Albuquerque, NM)

System/Unit: FAN - Exhaust



Asset: EF4

AREA:SHOP SERVICE EAST

Unit Data		
	Design	Actual
MFG	GREENHECK	GREENHECK
Model Num	CUBE-160-3	CUBE-240-7-1-34-X
Serial Num	-	23948422
Type	UPBLAST	UPBLAST

Motor Data		
	Design	Actual
Motor MFG	-	BALDOR-RELIANCE
Frame	-	56
Horsepower	0.75	0.75
Motor Rpm	1725	1725
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	13.8
Service Factor	-	1.0

Drive Data		
	Design	Actual
Motor Sheave Size	-	VP34S
Motor Bore Size	-	5/8"
Motor Sheave SetPt	-	1 TURN OPEN
Fan Sheave Size	-	AK74
Fan Sheave Bore	-	1"
Belt CL Distance	-	8"
Num of Belts	-	1
Belt Size	-	A30

Test Data		
	Design	Actual
CFM	5400	5297
Fan RPM	667	718
RL Voltage	-	115
RL Amperage	13.8	12.0
Suction ESP	-	-0.204"
Discharge ESP	-	ATM
Total ESP	0.25	0.204"
Brake Horse Power	-	0.65

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Project: LHM Dodge RTU Repl (Albuquerque, NM)

System/Unit: FAN - Exhaust



Asset: EF5

AREA:SOUTH SERVICE

Unit Data		
	Design	Actual
MFG	GREENHECK	GREENHECK
Model Num	CUBE-160-3	CUBE-160-3
Serial Num	-	23948428
Type	UPBLAST	UPBLAST

Motor Data		
	Design	Actual
Motor MFG	-	U.S. MOTORS
Horsepower	0.33	0.33
Motor Rpm	1725	1725
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	5.8
Service Factor	-	1.35

Drive Data		
	Design	Actual
Motor Sheave Size	-	VP34S
Motor Bore Size	-	1/2"
Motor Sheave SetPt	-	0 TURNSOPEN
Fan Sheave Size	-	AK56
Fan Sheave Bore	-	3/4"
Belt CL Distance	-	5"
Num of Belts	-	1
Belt Size	-	4L240R

Test Data		
	Design	Actual
CFM	2400	2196
Fan RPM	901	961
RL Voltage	-	[1]
RL Amperage	7.2	[1]
Suction ESP	-	-0.101"
Discharge ESP	-	ATM
Total ESP	0.15	0.101"

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Notes:

[1] COULD NOT SAFELY MEASURE

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Project: LHM Dodge RTU Repl (Albuquerque, NM)

System/Unit: FAN - Exhaust



Asset: EF6

AREA:DETAIL

Unit Data		
	Design	Actual
MFG	GREENHECK	GREENHECK
Model Num	CUBE-160-3	CUBE-200-3
Serial Num	-	23948429
Type	UPBLAST	UPBLAST

Motor Data		
	Design	Actual
Motor MFG	-	U.S. MOTORS
Horsepower	0.33	0.33
Motor Rpm	1725	1725
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	5.8
Service Factor	-	1.35

Drive Data		
	Design	Actual
Motor Sheave Size	-	VP34S
Motor Bore Size	-	1/2"
Motor Sheave SetPt	-	2 TURNS OPEN
Fan Sheave Size	-	AK79
Fan Sheave Bore	-	3/4"
Belt CL Distance	-	6"
Num of Belts	-	1
Belt Size	-	AP28

Test Data		
	Design	Actual
CFM	3000	2816
Fan RPM	610	644
RL Voltage	-	115
RL Amperage	-	5.5
Suction ESP	-	-0.112"
Discharge ESP	-	ATM
Total ESP	0.15	0.112"
Brake Horse Power	-	0.31

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Project: LHM Dodge RTU Repl (Albuquerque, NM)

System/Unit: FAN - Exhaust



Asset: EF7

AREA:OIL

Unit Data		
	Design	Actual
MFG	GREENHECK	GREENHECK
Model Num	CUBE-160-3	CUBE-200-5
Serial Num	-	23948430
Type	-	UPBLAST

Motor Data		
	Design	Actual
Motor MFG	-	U.S. MOTORS
Horsepower	0.50	0.5
Motor Rpm	1725	1725
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	8.6
Service Factor	-	1.25

Drive Data		
	Design	Actual
Motor Sheave Size	-	VP34S
Motor Bore Size	-	1/2"
Motor Sheave SetPt	-	0 TURNS OPEN
Fan Sheave Size	-	AK74
Fan Sheave Bore	-	3/4"
Belt CL Distance	-	6"
Num of Belts	-	1
Belt Size	-	A27

Test Data		
	Design	Actual
CFM	3000	2911
Fan RPM	655	775
RL Voltage	-	115
RL Amperage	-	8.6
Suction ESP	-	-0.14"
Discharge ESP	-	ATM
Total ESP	0.25	0.14"
Brake Horse Power	-	0.5

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Project: LHM Dodge RTU Repl (Albuquerque, NM)

System/Unit: FAN - Exhaust



Asset: EF8

AREA:SERVICE RECIEVING

Unit Data		
	Design	Actual
MFG	GREENHECK	GREENHECK
Model Num	CUBE-160-3	CUBE-200-3
Serial Num	-	23948431
Type	UPBLAST	UPBLAST

Motor Data		
	Design	Actual
Motor MFG	-	U.S. MOTORS
Frame	-	NL
Horsepower	0.33	0.33
Motor Rpm	1725	1725
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	5.8
Service Factor	-	1.35

Drive Data		
	Design	Actual
Motor Sheave Size	-	VP34S
Motor Bore Size	-	1/2"
Motor Sheave SetPt	-	4.5 TURNS OPEN
Fan Sheave Size	-	AK79
Fan Sheave Bore	-	3/4"
Belt CL Distance	-	6"
Num of Belts	-	1
Belt Size	-	A28

Test Data		
	Design	Actual
CFM	3000	3044
Fan RPM	610	535
RL Voltage	-	115
RL Amperage	-	5.2
Suction ESP	-	-0.10"
Discharge ESP	-	ATM
Total ESP	0.15	0.10"
Brake Horse Power	-	0.30

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Project: LHM Dodge RTU Repl (Albuquerque, NM)

System/Unit: FAN - Exhaust



Asset: EF9

AREA:SERVICE RECEIVING

Unit Data		
	Design	Actual
MFG	GREENHECK	GREENHECK
Model Num	CUBE-160-3	CUBE-200-3
Serial Num	-	23948432
Type	UPBLAST	UPBLAST

Motor Data		
	Design	Actual
Motor MFG	-	U.S. MOTORS
Horsepower	0.33	0.33
Motor Rpm	1725	1725
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	5.8
Service Factor	-	1.35

Drive Data		
	Design	Actual
Motor Sheave Size	-	VP34S
Motor Bore Size	-	1/2"
Motor Sheave SetPt	-	4.5 TURNS OPEN
Fan Sheave Size	-	AK79
Fan Sheave Bore	-	3/4"
Belt CL Distance	-	6"
Num of Belts	-	1
Belt Size	-	A28

Test Data		
	Design	Actual
CFM	3000	2939
Fan RPM	610	532
RL Voltage	-	115
RL Amperage	-	5.2
Suction ESP	-	-0.11"
Discharge ESP	-	ATM
Total ESP	0.15	0.11"
Brake Horse Power	-	0.295

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