

SUBMITTAL DATA

Magnolia Plus Series

GEOSTAR

R-454B
60Hz

SDW3-0019G



Contractor: _____ P.O.: _____
Engineer: _____
Project Name: _____ Unit Tag: _____



Nomenclature

1

2

3

4

5-7

8

9

10

11

12

13

14

15

16

17

18

19

20

G

3

A

V

036

B

D

1

*

0

1

C

I

L

1

A

1

0

Brand

G – GeoStar

Model

3 – Magnolia Plus

Type

A – Water to Air

Cabinet Configuration

V – Vertical Package
H – Horizontal Package

Unit Capacity

024,036,048,
060 and 072

Refrigerant

B – R454B

Compressor Type

D – Dual Capacity

Voltage

1 – 208-230/60/1

Vintage

* – Factory Use Only

Hot Water Generation

0 – None
1 – Hot Water Generation with Factory Installed Pump

Blower

1 – 5 Speed ECM

Water Coil

C – Copper
N – CuproNickel

IntelliStart

0 – None
1 – Yes

Mitigation

0 – None
1 – Sensor Mitigation*

Controls

A – Aurora Base Control
with TXV

Filter Option

0 – Duct Flanges, No Filter
1 – 1" Filter Rack w/1"
MERV 8 Filter

Return Air Configuration

L – Left
R – Right

Discharge Air Configuration

T – Top (Vertical)
S – Side (Horizontal)
E – End (Horizontal)

Rev.: 5/7/24

* Sensor mitigation required on 072 models. Not available on 024-060 models.

Contractor:_____ P.O.: _____

Engineer:_____

Project Name:_____ Unit Tag: _____



AHRI Performance Ratings

5 Speed ECM motor
AHRI/ASHRAE/ISO 13256-1
English (IP) Units

Model	Capacity Modulation	Flow Rate		Ground Water Heat Pump				Ground Loop Heat Pump			
		gpm	cfm	Cooling EWT 59°F		Heating EWT 50°F		Cooling Brine Full Load 77°F Part Load 68°F		Heating Brine Full Load 32°F Part Load 41°F	
024	Full	8	800	25,700	21.30	23,000	4.60	23,200	15.70	19,000	4.00
	Part	7	600	18,600	25.30	16,700	4.70	17,900	21.30	15,400	4.30
036	Full	9	1200	37,500	20.50	35,400	4.30	35,600	15.80	26,800	3.70
	Part	8	1000	28,700	26.40	25,300	4.60	28,000	22.40	22,000	4.20
048	Full	12	1600	51,200	19.60	46,000	4.20	49,000	16.00	37,300	3.70
	Part	11	1400	38,000	24.50	33,500	4.50	36,700	21.00	29,900	4.10
060	Full	16	1800	63,000	18.80	55,800	4.00	59,500	15.20	45,800	3.40
	Part	14	1500	46,100	23.50	38,200	4.20	45,200	20.40	34,900	3.90
072	Full	18	1900	69,500	20.80	68,900	4.20	65,800	16.40	53,000	3.60
	Part	16	1550	53,300	23.90	52,100	4.30	51,600	20.40	43,400	3.90

Cooling capacities based upon 80.6°F DB, 66.2°F WB entering air temperature

5/6/24

Heating capacities based upon 68°F DB, 59°F WB entering air temperature

All ratings based upon 208V operation

Energy Star Compliance Table

Model	Tier 3	
	Ground Water	Ground Loop
024	Yes	Yes
036	Yes	Yes
048	Yes	Yes
060	Yes	Yes
072	Yes	Yes

4/2/24

Energy Star Rating Criteria

In order for water-source heat pumps to be Energy Star rated they must meet or exceed the minimum efficiency requirements listed below. Tier 3 represents the current minimum efficiency water source heat pumps must have in order to be Energy Star rated.

Tier 3: 1/1/2012 - No Effective End Date Published

Water-to-Air	EER	COP
Ground Loop	17.1	3.6
Ground Water	21.1	4.1
Water-to-Water		
Ground Loop	16.1	3.1
Ground Water	20.1	3.5

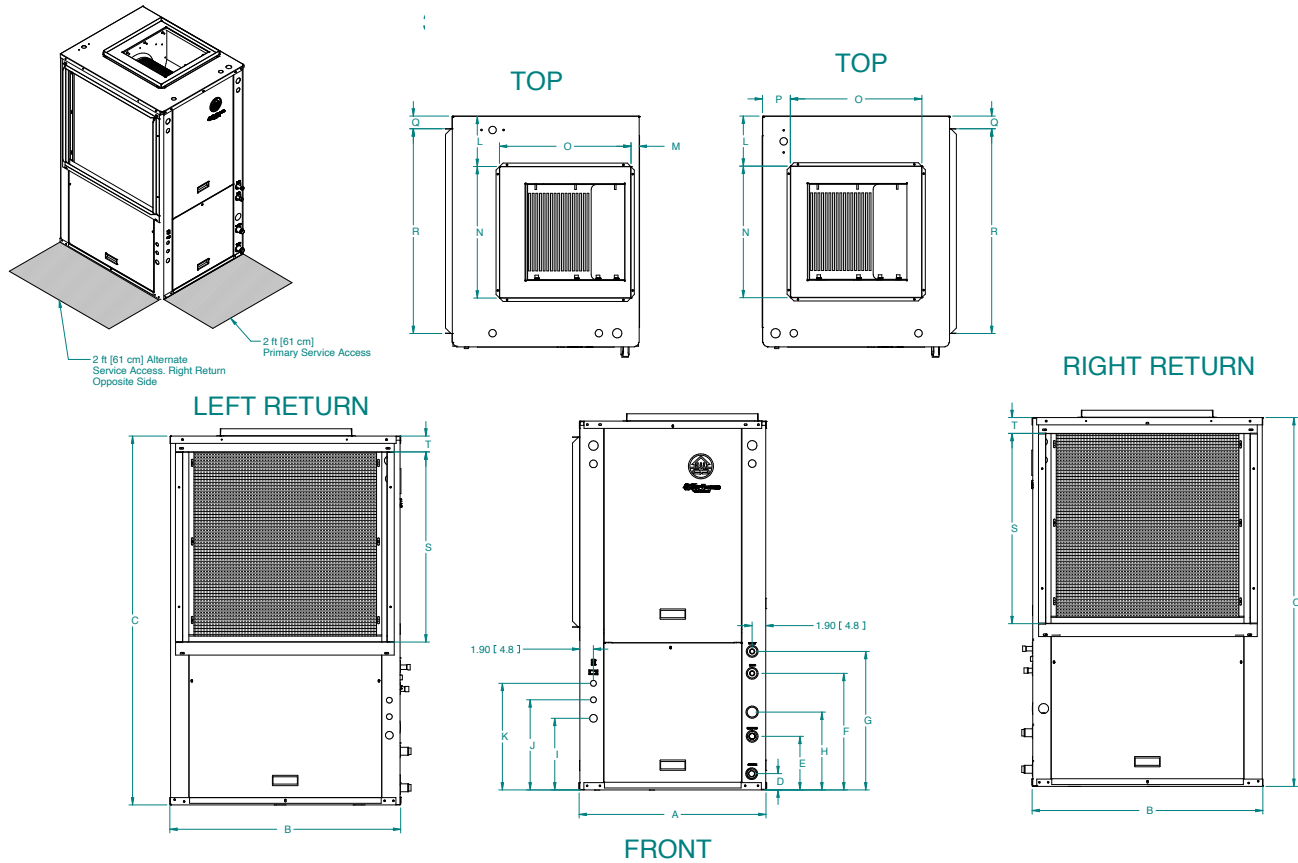
Contractor:_____ P.O.: _____

Engineer: _____

Project Name:_____ Unit Tag: _____



Dimensional Data - Vertical



Vertical Top Flow Model		Overall Cabinet			Water Connections							Electrical Connections			Discharge Connection duct flange installed (±0.10 in)					Return Connection Return Duct Flanges			
												I 3/4" cond	J 1/2" cond	K 1/2" cond									
		A	B	C	D	E	F	G	H	Loop Water FPT	HWG (O.D.)	Power Supply	Ext Pump	Low Votage	L	M	N	O	P	Q	R	S	T
Width	Depth	Height	Loop In	Loop Out	HWG In	HWG Out	Cond- ensate	Power Supply	Ext Pump			Low Votage			Supply Width	Supply Depth			Return Depth	Return Height			
024	in.	22.5	26.5	39.4	2.3	5.3	13.4	16.4	9.6	1" Swivel	1/2" Stub	8.9	11.4	13.7	6.3	0.7	14.0	14.0	2.7	2.3	22.0	18.0	1.8
	cm.	57.2	67.3	100.1	5.8	13.5	34.0	41.7	24.4			22.6	29.0	34.8	16.0	1.8	35.6	35.6	6.9	5.8	55.9	45.7	4.6
036	in.	22.5	26.5	44.5	2.0	7.0	13.5	16.5	10.2	1" Swivel	1/2" Stub	9.5	12.1	14.3	6.1	0.8	14.0	14.0	4.4	2.4	22.0	22.0	2.0
	cm.	57.2	67.3	113.0	5.1	17.8	34.3	41.9	25.9			24.1	30.7	36.3	15.5	2.0	35.6	35.6	11.2	6.1	55.9	55.9	5.1
048- 060	in.	25.6	31.6	50.4	2.3	7.3	15.9	18.9	10.6	1" Swivel	1/2" Stub	9.8	12.3	14.6	6.9	1.1	18.0	18.0	3.8	1.7	28.0	26.0	1.7
	cm.	65.0	80.3	128.0	5.8	18.5	40.4	48.0	26.9			24.9	31.2	37.1	17.5	2.8	45.7	45.7	9.7	4.3	71.1	66.0	4.3
072	in.	25.6	31.6	54.4	2.3	7.3	15.9	18.9	10.6	1" Swivel	1/2" Stub	9.8	12.3	14.6	6.9	1.1	18.0	18.0	3.8	1.7	28.1	30.0	2.2
	cm.	65.0	80.3	138.2	5.8	18.5	40.4	48.0	26.9			24.9	31.2	37.1	17.5	2.8	45.7	45.7	9.7	4.3	71.4	76.2	5.6

Condensate is 3/4" PVC female glue socket and is switchable from side to front

Unit shipped with 1" [25.4mm] return duct flanges and are suitable for duct connection.

The optional 1" filter rack (not shown) has the same return opening connection size as the duct flanges shown in the drawing. The filter rack extends 2.25"(57.1 mm) from the unit.

The optional 1" filter rack is suitable for duct connection.

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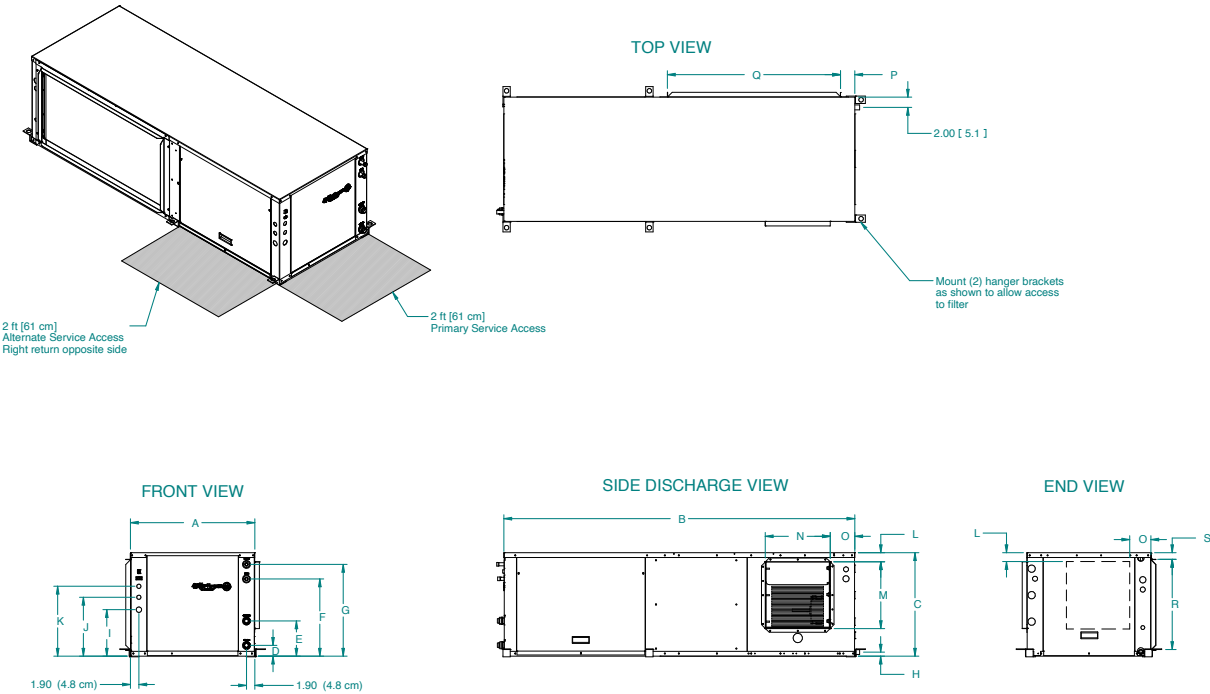
Contractor: _____ P.O.: _____

Engineer: _____

Project Name: _____ Unit Tag: _____



Dimensional Data - Horizontal



Horizontal Model		Overall Cabinet			Water Connections							Electrical Connections			Discharge Connection				Return Connection			
												I	J	K	Duct Flange Installed				Return Duct Flanges			
		A	B	C	D	E	F	G	H	Loop Water FPT	HWG (O.D.)	3/4" cond	1/2" cond	1/2" cond	L*	M	N	O*	P	Q	R	S
		Width	Depth	Height	In	Out	HWG In	HWG Out	Cond- ensate			Power Supply	Ext Pump	Low Voltage		Supply Height	Supply Depth			Return Depth	Return Height	
024	in.	22.5	53.0	19.3	2.3	5.3	13.8	16.8	0.8	1" Swivel	1/2"	8.9	11.5	13.7	1.7	10.5	9.5	8.2	2.2	21.8	16.5	1.5
	cm.	57.2	134.6	49.0	5.8	13.5	35.1	42.7	2.0		Stub	22.6	29.2	34.8	4.3	26.7	24.1	20.8	5.6	55.4	41.9	3.8
036	in.	22.5	63.0	19.3	2.3	7.3	13.5	16.5	0.8	1" Swivel	1/2"	9.5	12.1	14.3	2.3	10.5	9.5	5.7	2.8	30.5	16.7	1.3
	cm.	57.2	160.0	49.0	5.8	18.5	34.3	41.9	2.0		Stub	24.1	30.7	36.3	5.8	26.7	24.1	14.5	7.1	77.5	42.4	3.3
048- 060	in.	25.6	72.0	21.3	2.3	7.3	15.9	18.9	0.8	1" Swivel	1/2"	9.5	12.1	14.3	1.9	13.6	13.2	5.0	2.9	35.5	18.6	1.3
	cm.	65.0	182.9	54.1	5.8	18.5	40.4	48.0	2.0		Stub	24.1	30.7	36.3	4.8	34.5	33.5	12.7	7.4	90.2	47.2	3.3
072	in.	25.6	77.0	21.3	2.3	7.3	15.9	18.9	0.8	1" Swivel	1/2"	9.5	12.1	14.3	1.9	13.6	13.2	5.0	2.8	40.4	18.7	1.5
	cm.	65.0	195.6	54.1	5.8	18.5	40.4	48.0	2.0		Stub	24.1	30.7	36.3	4.8	34.5	33.5	12.7	7.1	102.6	47.5	3.8

* Dimensions shown are for left return side discharge other configurations shown in tables below
Condensate is 3/4" PVC female glue socket and is switchable from side to front
Water connections extend 1.2" [30.5mm] beyond front of cabinet.
The optional 1" filter rack (not shown) has the same return opening connection size as the duct flanges shown in the drawing. The filter rack extends 2.25"(57.1 mm) from the unit.
The optional 1" filter rack is suitable for duct connection.
The 024 model is not field convertible changing from end to side discharge. It requires an additional discharge panel (not supplied).

7/18/14

024 Model				036 Model				048-060 Models				072 Model			
Right Return End Discharge	in	2.2	5.7	Right Return End Discharge	in	6.5	6.6	Right Return End Discharge	in	1.9	5.0	Right Return End Discharge	in	1.9	5.0
	cm	5.6	14.5		cm	16.5	16.8		cm	4.8	12.7		cm	4.8	12.7
Right Return Side Discharge	in	6.9	8.3	Right Return Side Discharge	in	2.3	5.7	Right Return Side Discharge	in	5.7	5.0	Right Return Side Discharge	in	5.7	5.0
	cm	17.5	21.1		cm	5.8	14.5		cm	14.5	12.7		cm	14.5	12.7
Left Return End Discharge	in	6.5	7.3	Left Return End Discharge	in	6.5	6.6	Left Return End Discharge	in	5.7	4.9	Left Return End Discharge	in	5.7	5.0
	cm	16.5	18.5		cm	16.5	16.8		cm	14.5	12.4		cm	14.5	12.7

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Contractor: _____ P.O.: _____
Engineer: _____
Project Name: _____ Unit Tag: _____



Physical Data

Model		Dual Capacity				
		024	036	048	060	072
Compressor (1 each)		Copeland Ultra Tech, Dual Capacity Scroll				
Factory Charge R-454B, oz [kg]	Vertical	32 [0.91]	44 [1.25]	58 [1.64]	62 [1.76]	*76 [2.15]
Factory Charge R-454B, oz [kg]	Horizontal	32 [0.91]	42 [1.19]	58 [1.64]	60 [1.70]	*73 [2.07]
ECM Blower Motor & Blower						
Blower Motor Type/Speeds	ECM	5 Speed ECM				
Blower Motor- hp [W]	ECM	1/2 [373]	1/2 [373]	1 [746]	1 [746]	1 [746]
Blower Wheel Size (Dia x W), in. [mm]	ECM	9 x 7 [229 x 178]	9 x 7 [229 x 178]	11 x 10 [279 x 254]	11 x 10 [279 x 254]	11 x 10 [279 x 254]
Coax and Water Piping						
Water Connections Size - Swivel - in [mm]		1" [25.4]	1" [25.4]	1" [25.4]	1" [25.4]	1" [25.4]
HWG Connection Size - Stub - in [mm]		1/2" [12.7]	1/2" [12.7]	1/2" [12.7]	1/2" [12.7]	1/2" [12.7]
Coax & Piping Water Volume - gal [l]		.35 [1.3]	.7 [2.6]	.7 [2.6]	1.3 [4.9]	1.6 [6.1]
Vertical						
Air Coil Dimensions (H x W), in. [mm]		19 x 20 [483 x 508]	24 x 20 [610 x 508]	28 x 25 [711 x 635]	28 x 25 [711 x 635]	32 x 25 [813 x 635]
Air Coil Total Face Area, ft2 [m2]		2.6 [0.245]	3.3 [0.310]	4.9 [0.452]	4.9 [0.452]	5.6 [0.516]
Air Coil Tube Size, in [mm]		3/8 [9.5]	3/8 [9.5]	3/8 [9.5]	3/8 [9.5]	3/8 [9.5]
Air Coil Number of rows		3	3	3	3	3
Optional Filter - 1" [25mm] Pleated MERV8 Throwaway, in [mm]		20 x 24 [508 x 610]	20 x 24 [508 x 610]	28 x 30 [711 x 762]	28 x 30 [711 x 762]	30 x 32 [762 x 813]
Weight - Operating, lb [kg]		198 [90]	221 [100]	303 [137]	329 [149]	350 [159]
Weight - Packaged, lb [kg]		218 [99]	241 [109]	323 [147]	349 [158]	370 [168]
Horizontal						
Air Coil Dimensions (H x W), in. [mm]		18 x 21 [457 x 533]	18 x 27 [457 x 686]	20 x 35 [508 x 889]	20 x 35 [508 x 889]	20 x 40 [508 x 1016]
Air Coil Total Face Area, ft2 [m2]		2.6 [0.244]	3.4 [0.314]	4.9 [0.452]	4.9 [0.452]	5.6 [0.516]
Air Coil Tube Size, in [mm]		3/8 [9.5]	3/8 [9.5]	3/8 [9.5]	3/8 [9.5]	3/8 [9.5]
Air Coil Number of rows		3	3	3	3	3
Optional Filter - 1" [25mm] Pleated MERV8 Throwaway, in [mm]		1 - 18 x 24 [457 x 610]	1 - 20 x 32 [508 x 813]	1 - 20 x 37 [508 x 940]	1 - 20 x 37 [508 x 940]	1 - 20 x 20 [508 x 508] 1 - 20 x 22 [508 x 559]
Weight - Operating, lb [kg]		228 [103]	250 [113]	325 [147]	358 [162]	369 [167]
Weight - Packaged, lb [kg]		248 [112]	270 [122]	345 [156]	378 [171]	389 [176]

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Contractor:_____ P.O.: _____

Engineer:_____

Project Name:_____ Unit Tag: _____



Auxiliary Heat Ratings

Model	KW		Stages	BTU/HR		Min CFM	Compatibility		
	208V	230V		208V	230V		024	036	048 - 072
EAM(H)5	3.6	4.8	1	12,300	16,300	450	•	•	
EAM(H)8	5.7	7.6	2	19,400	25,900	550	•	•	
EAM(H)10	7.2	9.6	2	24,600	32,700	650	•	•	
EAL(H)10	7.2	9.6	2	24,600	32,700	1100			•
EAL(H)15	10.8	14.4	2	36,900	49,100	1250			•
EAL(H)20	14.4	19.2	2	49,200	65,500	1500			•

4/2/24

Order the "H" part number when installed on horizontal and vertical rear discharge units
Air flow level for auxiliary heat (Aux) must be equal to or above the minimum CFM in this table

Auxiliary Heat Electrical Data

Model	Supply Circuit	Heater Amps		Min Circuit Amp		Fuse (USA)		Fuse (CAN)		CKT BRK	
		208 V	240 V	208 V	240 V	208 V	240 V	208 V	240 V	208 V	240 V
EAM(H)5	Single	17.3	20.0	26.7	30.0	30	30	30	30	30	30
EAM(H)8	Single	27.5	31.7	39.3	44.6	40	45	40	45	40	45
EAM(H)10	Single	34.7	40.0	48.3	55.0	50	60	50	60	50	60
EAL(H)10	Single	34.7	40.0	53.3	60.0	60	60	60	60	60	60
EAL(H)15	Single	52.0	60.0	75.0	85.0	80	90	80	90	70	100
	L1/L2	34.7	40.0	53.3	60.0	60	60	60	60	60	60
	L3/L4	17.3	20.0	21.7	25.0	25	25	25	25	20	30
EAL(H)20	Single	69.3	80.0	96.7	110.0	100	110	100	110	100	100
	L1/L2	34.7	40.0	53.3	60.0	60	60	60	60	60	60
	L3/L4	34.7	40.0	43.3	50.0	45	50	45	50	40	50

4/2/24

All heaters rated single phase 60 cycle and include unit fan load
All fuses type "D" time delay (or HACR circuit breaker in USA)
Supply wire size to be determined by local codes

Contractor:_____ P.O.: _____

Engineer:_____

Project Name:_____ Unit Tag: _____



Electrical Data

Dual Capacity with ECM motor

Model	Rated Voltage	Voltage Min/Max	Compressor				HWG Pump FLA	Ext Loop FLA	Blower Motor FLA	Total Unit FLA	Min Circ Amp	Max Fuse/ HACR
			MCC	RLA	LRA	LRA*						
024	208-230/60/1	187/253	16.0	10.2	62.0	21.7	0.4	5.4	4.1	20.1	22.7	35
036	208-230/60/1	187/253	22.7	14.5	90.0	32.4	0.4	5.4	4.1	24.4	28.1	40
048	208-230/60/1	187/253	28.6	18.3	138.0	49.7	0.4	5.4	7.6	31.7	36.3	50
060	208-230/60/1	187/253	39.3	25.2	147.3	51.5	0.4	5.4	7.6	38.6	44.8	70
072	208-230/60/1	187/253	43.7	28.0	160.0	56.0	0.4	5.4	7.6	41.4	48.4	70

*With optional IntelliStart

6/25/24

Rated Voltage of 208/230/60/1
HACR circuit breaker in USA only
All fuses Class RK-5

Contractor:_____ P.O.: _____

Engineer:_____

Project Name:_____ Unit Tag: _____



Blower Performance Data

Dual Capacity with 5-Speed ECM

Model	Motor Speed	Motor Tap	T'stat Cnct.	Blower Size	Motor HP	Airflow (cfm) at External Static Pressure (in. wg)															
						0	0.05	0.1	0.15	0.2	0.25	0.3	0.35	0.4	0.45	0.5	0.6	0.7	0.8	0.9	1.00
024	High	5	W	9 x 7	1/2	1024	1013	1002	988	974	963	951	940	929	901	872	785	691	-	-	-
	Med High	4	Y2			932	917	902	892	882	867	851	842	832	817	802	756	661	-	-	-
	Med	3				835	826	816	801	785	772	759	749	738	719	700	677	636	-	-	-
	Med Low	2	Y1			765	747	729	720	710	696	681	662	643	627	611	581	515	-	-	-
	Low	1	G			665	656	647	626	605	593	580	561	541	519	496	443	392	-	-	-
036	High	5	W	9 x 7	1/2	1325	1319	1313	1293	1272	1242	1212	1158	1103	1058	1013	930	839	-	-	-
	Med High	4	Y2			1279	1267	1254	1238	1222	1203	1184	1137	1089	1049	1008	926	836	-	-	-
	Med	3				1229	1218	1206	1187	1167	1154	1140	1110	1079	1044	1008	929	829	-	-	-
	Med Low	2	Y1			1201	1184	1167	1156	1145	1129	1113	1086	1058	1028	997	914	808	-	-	-
	Low	1	G			1007	989	971	958	945	925	904	889	873	862	850	818	778	-	-	-
048	High	5	W	11 x 10	1	1890	1874	1857	1845	1833	1809	1784	1769	1754	1736	1718	1672	1629	1601	1562	1522
	Med High	4	Y2			1769	1754	1739	1721	1703	1685	1666	1645	1623	1604	1585	1539	1499	1463	1432	1376
	Med	3				1671	1652	1632	1614	1595	1576	1557	1536	1514	1494	1474	1430	1387	1351	1313	1173
	Med Low	2	Y1			1574	1555	1535	1514	1492	1472	1452	1431	1410	1387	1363	1330	1284	1236	1108	1014
	Low	1	G			1388	1370	1352	1322	1292	1264	1236	1216	1195	1178	1161	1095	984	916	842	787
060	High	5	W	11 x 10	1	2077	2066	2055	2044	2033	2017	2000	1966	1931	1904	1877	1841	1810	1791	1740	1653
	Med High	4	Y2			1948	1937	1925	1910	1895	1880	1865	1831	1797	1778	1759	1720	1707	1680	1660	1612
	Med	3				1810	1794	1778	1739	1700	1684	1667	1657	1646	1629	1612	1576	1583	1547	1510	1480
	Med Low	2	Y1			1680	1667	1653	1618	1583	1562	1540	1522	1503	1488	1473	1465	1449	1410	1369	1319
	Low	1	G			1594	1572	1550	1512	1474	1450	1426	1410	1393	1385	1376	1351	1325	1290	1168	1085
072	High	5	W	11 x 10	1	2402	2388	2373	2358	2343	2334	2325	2307	2289	2274	2258	2215	2177	2125	2052	1933
	Med High	4	Y2			2209	2193	2177	2164	2151	2135	2118	2105	2092	2072	2052	2017	1982	1954	1925	1844
	Med	3				2085	2072	2058	2045	2031	2010	1989	1972	1954	1936	1918	1881	1852	1821	1790	1751
	Med Low	2	Y1			1961	1951	1940	1926	1911	1885	1859	1844	1829	1814	1798	1759	1727	1703	1670	1636
	Low	1	G			1767	1751	1735	1715	1694	1678	1661	1640	1619	1602	1584	1548	1512	1475	1426	1397

Factory speed settings are in Bold
Air flow values are with dry coil and standard filter
For wet coil performance first calculate the face velocity of the air coil (Face Velocity [fpm] = Airflow [cfm] / Face Area [sq ft]).
Then for velocities of 200 fpm reduce the static capability by 0.03 in. wg, 300 fpm by 0.08 in. wg, 400 fpm by 0.12in. wg., and 500 fpm by 0.16 in. wg.
Highest setting is for auxiliary heat (W) and lowest setting is for constant blower (G). The "Y1" and "Y2" settings must be between the "G" and "W" settings.

Contractor: _____ P.O.: _____
Engineer: _____
Project Name: _____ Unit Tag: _____



Operating Limits

Operating Limits	Cooling		Heating	
	(°F)	(°C)	(°F)	(°C)
Air Limits				
Min. Ambient Air	45	7.2	45	7.2
Rated Ambient Air	80	26.7	70	21.1
Max. Ambient Air	100	37.8	85	29.4
Min. Entering Air	50	10.0	40	4.4
Rated Entering Air db/wb	80.6/66.2	27/19	68	20.0
Max. Entering Air db/wb	110/83	43/28.3	80	26.7
Water Limits				
Min. Entering Water	30	-1.1	20	-6.7
Normal Entering Water	50-110	10-43.3	30-70	-1.1
Max. Entering Water	120	48.9	90	32.2

Notes: Minimum/maximum limits are only for start-up conditions, and are meant for bringing the space up to occupancy temperature. Units are not designed to operate at the minimum/maximum conditions on a regular basis. The operating limits are dependent upon three primary factors: 1) water temperature, 2) return air temperature, and 3) ambient temperature. When any of the factors are at the minimum or maximum levels, the other two factors must be at the normal level for proper and reliable unit operation.

Definitions

Abbreviations and Definitions

- cfm = airflow, cubic feet/minute
EWT = entering water temperature, Fahrenheit
gpm = water flow in gallons/minute
WPD = water pressure drop, psi and feet of water
EAT = entering air temperature, Fahrenheit (dry bulb/wet bulb)
HC = air heating capacity, MBtu/h
TC = total cooling capacity, MBtu/h
SC = sensible cooling capacity, MBtu/h
kW = total power unit input, kilowatts
HR = total heat of rejection, MBtu/h
HE = total heat of extraction, MBtu/h
- HWC = hot water generator capacity, MBtu/h
EER = Energy Efficient Ratio
= Btu output/Watt input
COP = Coefficient of Performance
= Btu output/Btu input
LWT = leaving water temperature, °F
LAT = leaving air temperature, °F
TH = total heating capacity, MBtu/h
LC = latent cooling capacity, MBtu/h
S/T = sensible to total cooling ratio

Reference Calculations

Heating Calculations:	Cooling Calculations:
$LWT = EWT - \frac{HE}{gpm \times 500}$	$LWT = EWT + \frac{HR}{gpm \times 500}$
$LAT = EAT + \frac{HC}{cfm \times 1.08}$	$LAT (DB) = EAT (DB) - \frac{SC}{cfm \times 1.08}$
$TH = HC + HW$	$LC = TC - SC$
	$S/T = \frac{SC}{TC}$

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Contractor: _____ P.O.: _____
Engineer: _____
Project Name: _____ Unit Tag: _____



Correction Factor Tables

Air Flow Corrections (Dual Capacity Part Load)

Airflow		Cooling				Heating		
cfm Per Ton of Clg	% of Nominal	Total Cap	Sens Cap	Power	Heat of Rej	Htg Cap	Power	Heat of Ext
240	60	0.922	0.778	0.956	0.924	0.943	1.239	0.879
275	69	0.944	0.830	0.962	0.944	0.958	1.161	0.914
300	75	0.957	0.866	0.968	0.958	0.968	1.115	0.937
325	81	0.970	0.900	0.974	0.970	0.977	1.075	0.956
350	88	0.982	0.933	0.981	0.980	0.985	1.042	0.972
375	94	0.991	0.968	0.991	0.991	0.993	1.018	0.988
400	100	1.000	1.000	1.000	1.000	1.000	1.000	1.000
425	106	1.007	1.033	1.011	1.008	1.007	0.990	1.010
450	113	1.013	1.065	1.023	1.015	1.012	0.987	1.018
475	119	1.017	1.099	1.037	1.022	1.018	0.984	1.025
500	125	1.020	1.132	1.052	1.027	1.022	0.982	1.031
520	130	1.022	1.159	1.064	1.030	1.025	0.979	1.034

5/30/06

Air Flow Corrections (Dual Capacity Full Load)

Airflow		Cooling				Heating		
cfm Per Ton of Clg	% of Nominal	Total Cap	Sens Cap	Power	Heat of Rej	Htg Cap	Power	Heat of Ext
240	60	0.922	0.786	0.910	0.920	0.943	1.150	0.893
275	69	0.944	0.827	0.924	0.940	0.958	1.105	0.922
300	75	0.959	0.860	0.937	0.955	0.968	1.078	0.942
325	81	0.971	0.894	0.950	0.967	0.977	1.053	0.959
350	88	0.982	0.929	0.964	0.978	0.985	1.031	0.973
375	94	0.992	0.965	0.982	0.990	0.993	1.014	0.988
400	100	1.000	1.000	1.000	1.000	1.000	1.000	1.000
425	106	1.007	1.034	1.020	1.010	1.007	0.990	1.011
450	113	1.012	1.065	1.042	1.018	1.013	0.983	1.020
475	119	1.017	1.093	1.066	1.026	1.018	0.980	1.028
500	125	1.019	1.117	1.092	1.033	1.023	0.978	1.034
520	130	1.020	1.132	1.113	1.038	1.026	0.975	1.038

5/30/06

Cooling Capacity Corrections

Entering Air WB °F	Total Clg Cap	Sensible Cooling Capacity Multipliers - Entering DB °F										Power Input	Heat of Rejection
		60	65	70	75	80	80.6	85	90	95	100		
55	0.898	0.723	0.866	1.048	1.185	*	*	*	*	*	*	0.985	0.913
60	0.912		0.632	0.880	1.078	1.244	1.260	*	*	*	*	0.994	0.927
63	0.945			0.768	0.960	1.150	1.175	*	*	*	*	0.996	0.954
65	0.976			0.694	0.881	1.079	1.085	1.270	*	*	*	0.997	0.972
66.2	0.983			0.655	0.842	1.040	1.060	1.232	*	*	*	0.999	0.986
67	1.000			0.616	0.806	1.000	1.023	1.193	1.330	1.480	*	1.000	1.000
70	1.053				0.693	0.879	0.900	1.075	1.205	1.404	*	1.003	1.044
75	1.168					0.687	0.715	0.875	1.040	1.261	1.476	1.007	1.141

NOTE: * Sensible capacity equals total capacity at conditions shown.

3/28/12

Heating Capacity Corrections

Ent Air DB °F	Heating Corrections		
	Htg Cap	Power	Heat of Ext
45	1.062	0.739	1.158
50	1.050	0.790	1.130
55	1.037	0.842	1.096
60	1.025	0.893	1.064
65	1.012	0.945	1.030
68	1.005	0.976	1.012
70	1.000	1.000	1.000
75	0.987	1.048	0.970
80	0.975	1.099	0.930

11/10/09

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Contractor: _____ P.O.: _____
 Engineer: _____
 Project Name: _____ Unit Tag: _____



Antifreeze Corrections

Catalog performance can be corrected for antifreeze use. Please use the following table and note the example given.

Antifreeze Type	Antifreeze % by wt	Heating	Cooling	Pressure Drop
EWT - °F [°C]		30 [-1.1]	90 [32.2]	30 [-1.1]
Water	0	1.000	1.000	1.000
Ethylene Glycol	10	0.973	0.991	1.075
	20	0.943	0.979	1.163
	30	0.917	0.965	1.225
	40	0.890	0.955	1.324
	50	0.865	0.943	1.419
Propylene Glycol	10	0.958	0.981	1.130
	20	0.913	0.969	1.270
	30	0.854	0.950	1.433
	40	0.813	0.937	1.614
	50	0.770	0.922	1.816
Ethanol	10	0.927	0.991	1.242
	20	0.887	0.972	1.343
	30	0.856	0.947	1.383
	40	0.815	0.930	1.523
	50	0.779	0.911	1.639
Methanol	10	0.957	0.986	1.127
	20	0.924	0.970	1.197
	30	0.895	0.951	1.235
	40	0.863	0.936	1.323
	50	0.833	0.920	1.399



WARNING: Gray area represents antifreeze concentrations greater than 35% by weight and should be avoided due to the extreme performance penalty they represent.

Antifreeze Correction Example

Antifreeze solution is Propylene Glycol 20% by weight. Determine the corrected heating and cooling performance at 30°F and 90°F respectively as well as pressure drop at 30°F for a 036.

The corrected cooling capacity at 90°F would be: 34,800 Btu/h x 0.969 = 33,721 Btu/h

The corrected heating capacity at 30°F would be: 29,300 Btu/h x 0.913 = 26,750 Btu/h

The corrected pressure drop at 30°F and 9 gpm would be: 13.4 feet of head x 1.270 = 17.02 feet of head

Contractor:_____ P.O.: _____

Engineer: _____

Project Name: _____ Unit Tag: _____



Pressure Drop

Model	GPM	Pressure Drop (psi)				
		30°F	50°F	70°F	90°F	110°F
024 full load	4	1.9	1.8	1.7	1.6	1.5
	6	5.3	5.0	4.7	4.4	4.1
	8	8.7	8.2	7.7	7.2	6.7
	10	12.1	11.4	10.5	10	9.3
024 part load	3	1.0	1.0	0.9	0.8	0.8
	5	3.9	3.6	3.4	3.2	2.9
	7	6.5	6.1	5.7	5.3	4.9
	9	9.1	8.6	7.9	7.4	6.9
036 full load	5	2.3	2.1	2.0	1.9	1.7
	7	4.4	4.2	3.9	3.6	3.4
	9	6.6	6.2	5.8	5.4	5.0
	11	8.8	8.2	7.4	7.2	6.6
036 part load	4	1.5	1.4	1.3	1.2	1.1
	6	3.3	3.1	2.9	2.7	2.5
	8	5.2	4.9	4.6	4.3	4.0
	10	7.1	6.7	6.2	5.9	5.5
048 full load	6	6.8	6.4	6.0	5.6	5.2
	9	9.4	8.9	8.3	7.7	7.2
	12	12.0	11.3	10.6	9.9	9.2
	15	14.6	13.7	12.8	12.1	11.2
048 part load	5	2.4	2.2	2.1	2	1.8
	8	6.2	5.9	5.5	5.1	4.8
	11	10.1	9.5	8.9	8.3	7.7
	14	14.0	13.1	12.2	11.5	10.6
060 full load	8	7.3	6.8	6.4	6.0	5.5
	12	11.6	10.9	10.2	9.5	8.8
	16	15.9	15.0	14.0	13.0	12.1
	20	20.2	19.1	17.8	16.5	15.4
060 part load	6	4.3	4.1	3.8	3.5	3.3
	10	8.4	7.9	7.4	6.9	6.4
	14	12.7	12.0	11.2	10.4	9.7
	18	17.0	16.1	15.1	13.9	13.0
072 full load	12	3.8	3.6	3.4	3.1	2.9
	15	5.7	5.3	5.0	4.7	4.3
	18	7.8	7.4	6.9	6.4	6.0
	21	9.9	9.5	9.1	8.1	7.7
072 part load	10	2.8	2.7	2.5	2.3	2.2
	13	4.8	4.5	4.2	3.9	3.8
	16	6.8	6.4	6.0	5.6	5.4
	19	8.8	8.3	7.6	7.3	7.0

6/10/24

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Contractor: _____ P.O.: _____

Engineer: _____

Project Name: _____ Unit Tag: _____



Performance Data

024 - Dual Capacity with 5-Speed ECM High Speed (800 cfm)

EWT °F	Flow gpm	WPD		HEATING - EAT 70°F							COOLING - EAT 80/67 °F							
		PSI	FT	Airflow cfm	HC kBTuh	Power kW	HE kBTuh	LAT °F	COP	HWC kBTuh	Airflow cfm	TC kBTuh	SC kBTuh	S/T Ratio	Power kW	HR kBTuh	EER	HWC kBTuh
20	4.0	2.0	4.6	Operation not recommended							Operation not recommended							
	6.0	5.5	12.7															
	8.0	9.0	20.8	600	15.7	1.43	10.8	94.2	3.22	2.1	800	16.3	1.45	11.4	88.9	3.29	2.0	2.0
30	4.0	1.9	4.5	Operation not recommended							Operation not recommended							
	6.0	5.3	12.3															
	8.0	8.7	20.2	600	18.3	1.51	13.2	98.3	3.56	2.3	800	18.9	1.56	13.5	91.8	3.55	2.1	2.1
40	4.0	1.9	4.3	Operation not recommended							Operation not recommended							
	6.0	5.2	12.0															
	8.0	8.5	19.6	600	20.5	1.55	15.3	101.7	3.89	2.6	800	21.2	1.58	15.8	94.5	3.93	2.4	2.4
50	4.0	1.8	4.2	600	21.1	1.53	15.9	102.6	4.05	2.7	800	21.8	1.55	16.5	95.2	4.11	2.5	2.5
	6.0	5.0	11.6	600	21.9	1.56	16.6	103.8	4.10	2.8	800	22.6	1.59	17.2	96.2	4.18	2.6	2.6
	8.0	8.2	19.0	600	22.4	1.58	17.0	104.6	4.16	2.9	800	23.1	1.60	17.6	96.7	4.23	2.6	2.6
60	4.0	1.8	4.1	600	24.0	1.61	18.5	107.0	4.35	3.0	800	24.7	1.63	19.2	98.6	4.46	2.8	2.8
	6.0	4.9	11.2	600	25.0	1.66	19.4	108.7	4.42	3.0	800	25.9	1.67	20.2	99.9	4.54	2.8	2.8
	8.0	8.0	18.4	600	25.7	1.68	19.9	109.6	4.48	3.2	800	26.5	1.69	20.8	100.7	4.61	2.9	2.9
70	4.0	1.7	3.9	600	26.8	1.70	21.0	111.4	4.62	3.2	800	29.7	1.73	23.8	104.4	5.03	3.0	3.0
	6.0	4.7	10.9	600	28.2	1.76	22.2	113.5	4.71	3.4	800	29.1	1.76	23.1	103.7	4.86	3.1	3.1
	8.0	7.7	17.8	600	28.9	1.78	22.9	114.6	4.77	3.5	800	29.9	1.77	23.9	104.6	4.95	3.2	3.2
80	4.0	1.6	3.8	600	28.8	1.74	22.8	114.4	4.84	3.6	800	29.8	1.73	23.9	104.5	5.05	3.3	3.3
	6.0	4.5	10.5	600	30.4	1.81	24.3	117.0	4.92	3.7	800	31.5	1.80	25.4	106.4	5.14	3.5	3.5
	8.0	7.4	17.2	600	31.3	1.84	25.1	118.3	5.00	3.9	800	32.4	1.81	26.2	107.5	5.25	3.6	3.6
90	4.0	1.6	3.7	600	30.8	1.79	24.7	117.5	5.04	3.9	800	31.9	1.76	25.9	106.9	5.30	3.7	3.7
	6.0	4.4	10.1	600	32.7	1.87	26.3	120.5	5.13	4.1	800	33.9	1.84	27.6	109.2	5.40	3.8	3.8
	8.0	7.2	16.6	600	33.7	1.90	27.3	122.1	5.21	4.3	800	34.9	1.85	28.6	110.4	5.53	4.0	4.0
100	4.0	1.5	3.5	Operation not recommended							Operation not recommended							
	6.0	4.2	9.8															
	8.0	6.9	16.0	600	20.9	1.50	15.0	97.2	3.22	2.1	800	21.6	1.50	15.0	97.2	3.22	2.1	2.1
110	4.0	1.5	3.4	Operation not recommended							Operation not recommended							
	6.0	4.1	9.4															
	8.0	6.7	15.4	600	19.4	1.41	14.1	97.3	3.22	2.1	800	19.9	1.41	14.1	97.3	3.22	2.1	2.1
120	4.0	1.4	3.3	Operation not recommended							Operation not recommended							
	6.0	3.9	9.0															
	8.0	6.4	14.8	600	18.3	1.37	13.7	97.2	3.22	2.1	800	18.7	1.37	13.7	97.2	3.22	2.1	2.1

Performance capacities shown in thousands of Btuh.

5/20/24

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Contractor: _____ P.O.: _____

Engineer: _____

Project Name: _____ Unit Tag: _____



Performance Data cont.

024 - Dual Capacity with 5-Speed ECM Low Speed (600 cfm)

EWT °F	Flow gpm	WPD		HEATING - EAT 70°F							COOLING - EAT 80/67 °F							
		PSI	FT	Airflow cfm	HC kBtuh	Power kW	HE kBtuh	LAT °F	COP	HWC kBtuh	Airflow cfm	TC kBtuh	SC kBtuh	S/T Ratio	Power kW	HR kBtuh	EER	HWC kBtuh
20	3.0	1.1	2.4	Operation not recommended							Operation not recommended							
	5.0	4.0	9.2															
	7.0	6.7	15.4	500	11.3	1.11	7.5	91.0	2.99	1.8	500	17.1	11.9	0.70	0.61	19.2	28.0	-
				600	11.5	1.10	7.7	87.7	3.06	1.7	600	17.5	13.0	0.74	0.64	19.7	27.3	-
30	3.0	1.0	2.4	Operation not recommended							Operation not recommended							
	5.0	3.9	8.9															
	7.0	6.5	15.0	500	13.3	1.18	9.3	94.6	3.30	1.8	500	17.1	11.9	0.70	0.61	19.2	28.0	-
				600	13.5	1.17	9.5	90.8	3.38	1.7	600	17.5	13.0	0.74	0.64	19.7	27.3	-
40	3.0	1.0	2.3	Operation not recommended							Operation not recommended							
	5.0	3.7	8.7															
	7.0	6.3	14.5	500	14.9	1.14	11.0	97.5	3.82	1.8	500	17.8	12.3	0.69	0.68	20.1	26.2	-
				600	15.4	1.17	11.4	93.7	3.86	1.7	600	18.2	13.4	0.74	0.71	20.6	25.6	-
50	3.0	1.0	2.2	500	15.7	1.11	12.0	99.1	4.16	1.8	500	17.0	11.5	0.68	0.81	19.8	21.1	5.0
				600	16.2	1.12	12.4	95.0	4.22	1.7	600	17.9	12.8	0.71	0.85	20.8	21.1	0.6
	5.0	3.6	8.4	500	16.3	1.13	12.4	100.2	4.21	1.8	500	17.4	11.6	0.67	0.76	20.0	22.9	0.5
				600	16.8	1.15	12.9	96.0	4.29	1.8	600	18.3	12.9	0.71	0.80	21.0	22.9	0.6
	7.0	6.1	14.1	500	16.7	1.14	12.8	100.9	4.27	2.0	500	17.6	12.4	0.71	0.74	20.1	23.7	0.5
				600	17.2	1.16	13.2	96.5	4.35	1.8	600	18.5	13.8	0.75	0.78	21.2	23.7	0.5
60	3.0	0.9	2.2	500	17.7	1.14	13.8	102.8	4.56	2.0	500	16.4	11.4	0.70	0.89	19.4	18.3	0.7
				600	18.3	1.15	14.4	98.2	4.67	1.8	600	17.2	12.7	0.74	0.93	20.3	18.4	0.8
	5.0	3.5	8.1	500	18.5	1.17	14.5	104.3	4.63	2.0	500	16.8	11.5	0.69	0.85	19.6	19.7	0.7
				600	19.1	1.18	15.1	99.5	4.75	1.9	600	17.5	12.8	0.73	0.88	20.6	19.9	0.8
	7.0	5.9	13.6	500	19.0	1.19	14.9	105.1	4.69	2.1	500	16.9	12.2	0.72	0.83	19.7	20.4	0.6
				600	19.6	1.19	15.5	100.2	4.83	1.9	600	17.8	13.5	0.76	0.87	20.7	20.5	0.7
70	3.0	0.9	2.1	500	19.7	1.17	15.7	106.5	4.94	2.2	500	15.7	11.3	0.72	0.98	19.0	16.1	1.0
				600	20.9	1.19	16.8	102.3	5.15	2.0	600	16.8	13.1	0.78	0.96	20.1	17.5	1.1
	5.0	3.4	7.9	500	20.7	1.21	16.6	108.4	5.02	2.2	500	16.1	11.5	0.71	0.94	19.3	17.2	0.9
				600	21.4	1.21	17.3	103.1	5.19	2.0	600	16.8	12.7	0.76	0.97	20.1	17.3	1.0
	7.0	5.7	13.2	500	19.0	1.16	15.0	105.2	4.80	2.3	500	16.3	11.9	0.73	0.91	19.4	17.8	0.9
				600	22.0	1.22	17.8	104.0	5.29	2.1	600	17.0	13.2	0.78	0.95	20.2	17.9	1.0
80	3.0	0.9	2.0	500	20.9	1.20	16.8	108.8	5.13	2.4	500	15.0	11.3	0.75	1.09	18.7	13.8	1.4
				600	21.7	1.19	17.6	103.4	5.35	2.2	600	15.6	12.5	0.80	1.12	19.5	13.9	1.5
	5.0	3.3	7.6	500	22.1	1.24	17.9	111.0	5.22	2.4	500	15.4	11.4	0.74	1.05	19.0	14.7	1.3
				600	22.9	1.23	18.7	105.3	5.45	2.3	600	16.1	12.6	0.79	1.08	19.8	14.9	1.4
	7.0	5.5	12.7	500	22.8	1.26	18.5	112.2	5.30	2.6	500	15.6	11.7	0.75	1.03	19.1	15.2	1.2
				600	23.6	1.24	19.3	106.3	5.57	2.4	600	16.3	13.0	0.80	1.06	19.9	15.3	1.3
90	3.0	0.8	1.9	500	22.1	1.22	18.0	111.0	5.32	2.8	500	14.4	11.2	0.78	1.20	18.4	12.0	1.9
				600	22.9	1.20	18.8	105.4	5.60	2.5	600	14.9	12.5	0.84	1.23	19.1	12.1	2.0
	5.0	3.2	7.3	500	23.5	1.27	19.2	113.6	5.41	2.9	500	14.8	11.4	0.77	1.17	18.8	12.7	1.8
				600	24.4	1.25	20.1	107.6	5.71	2.6	600	15.3	12.6	0.82	1.19	19.4	12.8	1.9
	7.0	5.3	12.3	500	24.3	1.29	19.9	114.9	5.50	2.9	500	15.6	11.0	0.71	1.18	19.6	13.2	1.7
				600	25.1	1.26	20.8	108.7	5.84	2.6	600	15.5	12.7	0.82	1.17	19.5	13.2	1.9
100	3.0	0.8	1.9	Operation not recommended							Operation not recommended							
	5.0	3.1	7.1															
	7.0	5.1	11.8	500	14.2	1.11	14.2	103.4	5.35	2.2	500	14.2	11.1	0.78	1.38	18.9	10.3	2.3
				600	14.6	1.13	14.6	103.4	5.35	2.2	600	14.6	11.3	0.84	1.40	19.4	10.4	2.5
				500	14.3	1.10	14.0	103.4	5.35	2.2	500	14.3	11.0	0.77	1.36	19.0	10.6	2.1
				600	14.8	1.12	14.2	103.4	5.35	2.2	600	14.8	11.2	0.82	1.38	19.5	10.7	2.4
110	3.0	0.8	1.8	Operation not recommended							Operation not recommended							
	5.0	2.9	6.8															
	7.0	4.9	11.4	500	13.6	1.07	13.6	103.4	5.35	2.2	500	13.6	10.7	0.79	1.60	19.1	8.5	3.1
				600	14.0	1.09	13.9	103.4	5.35	2.2	600	14.0	10.9	0.86	1.61	19.5	8.7	3.3
				500	13.7	1.06	13.4	103.4	5.35	2.2	500	13.7	10.6	0.77	1.57	19.1	8.7	2.9
				600	14.1	1.07	13.7	103.4	5.35	2.2	600	14.1	10.7	0.83	1.59	19.5	8.9	3.2
120	3.0	0.7	1.7	Operation not recommended							Operation not recommended							
	5.0	2.8	6.5															
	7.0	4.7	10.9	500	11.9	1.04	11.9	103.4	5.35	2.2	500	11.9	10.4	0.87	1.74	17.9	6.8	3.7
				600	12.2	1.03	12.2	103.4	5.35	2.2	600	12.2	10.3	0.93	1.79	18.3	6.8	4.0
				500	12.0	1.04	12.0	103.4	5.35	2.2	500	12.0	10.4	0.86	1.69	17.8	7.1	3.4
				600	12.3	1.03	12.3	103.4	5.35	2.2	600	12.3	10.3	0.92	1.74	18.2	7.1	3.8

Performance capacities shown in thousands of Btuh.

5/20/24

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Contractor:_____ P.O.: _____

Engineer:_____

Project Name:_____ Unit Tag: _____



Performance Data

036 - Dual Capacity with 5-Speed ECM High Speed (1200 cfm)

EWT °F	Flow gpm	WPD		HEATING - EAT 70°F							COOLING - EAT 80/67 °F							
		PSI	FT	Airflow cfm	HC kBtuh	Power kW	HE kBtuh	LAT °F	COP	HWC kBtuh	Airflow cfm	TC kBtuh	SC kBtuh	S/T Ratio	Power kW	HR kBtuh	EER	HWC kBtuh
20	5.0	2.3	5.4	Operation not recommended							Operation not recommended							
	7.0	4.6	10.5															
	9.0	6.8	15.7	1000 1200	25.5 25.4	2.08 2.22	18.4 17.8	93.6 89.6	3.59 3.35	3.3 3.0								
30	5.0	2.3	5.3	Operation not recommended							Operation not recommended							
	7.0	4.4	10.2															
	9.0	6.6	15.2	1000 1200	27.3 28.1	2.28 2.35	19.6 20.1	95.3 91.7	3.52 3.51	3.5 3.2	1000 1200	32.5 33.1	22.4 24.5	0.69 0.74	1.38 1.46	37.3 38.0	23.5 22.7	- -
40	5.0	2.2	5.1	Operation not recommended							Operation not recommended							
	7.0	4.3	9.9															
	9.0	6.4	14.8	1000 1200	28.8 28.7	2.22 2.37	21.2 20.6	96.7 92.1	3.80 3.55	3.6 3.3	1000 1200	32.7 33.5	22.4 24.5	0.69 0.73	1.34 1.41	37.3 38.3	24.4 23.8	- -
50	5.0	2.1	4.9	1000 1200	33.7 34.7	2.34 2.37	25.7 26.6	101.2 96.8	4.21 4.28	4.1 3.8	1000 1200	35.2 37.0	21.0 23.4	0.60 0.63	1.79 1.89	41.3 43.5	19.6 19.6	1.8 1.9
	7.0	4.2	9.6	1000 1200	34.9 36.0	2.40 2.43	26.7 27.7	102.3 97.8	4.27 4.35	4.2 3.9	1000 1200	35.9 37.8	21.3 23.6	0.59 0.62	1.69 1.77	41.7 43.8	21.3 21.3	1.7 1.8
	9.0	6.2	14.3	1000 1200	35.7 36.8	2.42 2.45	27.4 28.4	103.0 98.4	4.33 4.40	4.4 4.0	1000 1200	36.3 38.2	22.7 25.2	0.63 0.66	1.65 1.73	41.9 44.1	22.0 22.1	1.6 1.7
60	5.0	2.1	4.8	1000 1200	36.8 38.0	2.45 2.46	28.5 29.6	104.1 99.3	4.41 4.52	4.6 4.2	1000 1200	35.0 36.7	22.1 24.6	0.63 0.67	2.03 2.12	42.0 44.0	17.2 17.3	2.1 2.3
	7.0	4.0	9.3	1000 1200	38.5 39.7	2.52 2.53	29.9 31.1	105.6 100.6	4.48 4.59	4.7 4.4	1000 1200	35.9 37.6	22.4 24.9	0.62 0.66	1.93 2.01	42.5 44.4	18.6 18.7	2.0 2.2
	9.0	6.0	13.9	1000 1200	39.4 40.7	2.54 2.56	30.7 32.0	106.5 101.4	4.54 4.67	4.9 4.5	1000 1200	36.2 38.0	23.6 26.2	0.65 0.69	1.89 1.97	42.6 44.7	19.2 19.3	1.9 2.1
70	5.0	2.0	4.6	1000 1200	40.0 42.1	2.55 2.61	31.3 33.2	107.0 102.5	4.59 4.73	5.1 4.7	1000 1200	34.9 37.1	23.3 27.1	0.67 2.12	2.28 2.07	42.7 44.2	18.5 17.9	2.6 2.8
	7.0	3.9	9.0	1000 1200	42.1 43.4	2.64 2.64	33.0 34.4	108.9 103.5	4.67 4.82	5.3 4.9	1000 1200	35.8 37.3	23.6 26.2	0.66 0.70	2.18 2.25	43.2 45.0	16.4 16.6	2.4 2.7
	9.0	5.8	13.4	1000 1200	43.1 44.6	2.67 2.66	34.0 35.5	109.9 104.4	4.73 4.91	5.4 5.0	1000 1200	36.2 37.8	24.6 27.2	0.68 0.72	2.12 2.21	43.4 45.3	17.0 17.1	2.3 2.5
80	5.0	1.9	4.5	1000 1200	42.8 44.3	2.62 2.60	33.9 35.5	109.7 104.2	4.79 4.99	5.8 5.4	1000 1200	33.8 35.1	23.2 25.8	0.69 0.73	2.43 2.51	42.1 43.7	13.9 14.0	3.2 3.4
	7.0	3.8	8.7	1000 1200	45.3 46.8	2.73 2.70	36.0 37.6	111.9 106.1	4.87 5.09	6.0 5.6	1000 1200	34.7 36.1	23.5 26.0	0.68 0.72	2.35 2.42	42.7 44.3	14.8 14.9	3.0 3.3
	9.0	5.6	12.9	1000 1200	46.6 48.2	2.76 2.72	37.2 38.9	113.2 107.2	4.95 5.19	6.2 5.7	1000 1200	35.1 36.5	24.1 26.7	0.69 0.73	2.30 2.37	42.9 44.6	15.2 15.4	2.8 3.1
90	5.0	1.9	4.3	1000 1200	45.7 47.3	2.69 2.65	36.5 38.3	112.3 106.5	4.98 5.23	6.6 6.1	1000 1200	32.6 33.8	23.1 25.6	0.71 0.76	2.59 2.66	41.5 42.8	12.6 12.7	4.1 4.3
	7.0	3.6	8.4	1000 1200	48.5 50.3	2.81 2.76	39.0 40.9	114.9 108.8	5.06 5.34	6.8 6.3	1000 1200	33.6 34.8	23.4 25.9	0.70 0.74	2.52 2.58	42.2 43.6	13.3 13.5	3.8 4.1
	9.0	5.4	12.5	1000 1200	50.1 51.8	2.85 2.78	40.3 42.3	116.4 110.0	5.15 5.46	7.0 6.5	1000 1200	35.8 35.2	26.4 26.1	0.74 0.74	2.38 2.53	43.9 43.8	15.0 13.9	3.5 3.9
100	5.0	1.8	4.2	Operation not recommended							Operation not recommended							
	7.0	3.5	8.1															
	9.0	5.2	12.0	1000 1200	32.6 33.7	24.2 26.9	0.74 0.80	2.77 2.81	42.1 43.3	11.8 12.0	4.6 5.0	1000 1200	33.0 34.1	24.1 26.7	0.73 0.78	2.72 2.76	42.3 43.5	12.1 12.3
110	5.0	1.7	4.0	Operation not recommended							Operation not recommended							
	7.0	3.4	7.8															
	9.0	5.0	11.6	1000 1200	31.7 32.6	25.1 27.9	0.79 0.86	3.01 3.03	42.0 42.9	10.5 10.7	5.8 6.2	1000 1200	32.0 32.9	24.7 27.3	0.77 0.83	2.96 2.99	42.1 43.1	10.8 11.0
120	5.0	1.7	3.8	Operation not recommended							Operation not recommended							
	7.0	3.2	7.5															
	9.0	4.8	11.1	1000 1200	28.9 29.4	22.7 24.6	0.78 0.84	3.49 3.58	40.8 41.7	8.3 8.2	6.9 7.4	1000 1200	29.2 29.8	22.7 24.6	0.78 0.83	3.37 3.48	40.7 41.7	8.6 8.6

Performance capacities shown in thousands of Btuh. 5/20/24

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Contractor:_____ P.O.: _____

Engineer:_____

Project Name:_____ Unit Tag: _____



Performance Data cont.

036 - Dual Capacity with 5-Speed ECM Low Speed (1000 cfm)

EWT °F	Flow gpm	WPD		HEATING - EAT 70°F							COOLING - EAT 80/67 °F							
		PSI	FT	Airflow cfm	HC kBtuh	Power kW	HE kBtuh	LAT °F	COP	HWC kBtuh	Airflow cfm	TC kBtuh	SC kBtuh	S/T Ratio	Power kW	HR kBtuh	EER	HWC kBtuh
20	4.0	1.5	3.5	Operation not recommended							Operation not recommended							
	6.0	3.4	7.8															
	8.0	5.4	12.4	850 1000	17.4 17.5	1.55 1.65	12.1 11.9	89.0 86.2	3.30 3.11	2.9 2.6								
30	4.0	1.5	3.4	Operation not recommended							Operation not recommended							
	6.0	3.3	7.6															
	8.0	5.2	12.1	850 1000	20.4 20.5	1.67 1.78	14.7 14.4	92.2 89.0	3.58 3.38	2.9 2.6	850 1000	25.4 25.9	18.1 19.8	0.71 0.77	0.93 0.98	28.6 29.2	27.3 26.3	- -
40	4.0	1.4	3.3	Operation not recommended							Operation not recommended							
	6.0	3.2	7.4															
	8.0	5.1	11.7	850 1000	22.9 23.7	1.76 1.80	16.9 17.5	95.0 91.9	3.82 3.86	2.8 2.9	850 1000	26.6 27.5	18.9 20.6	0.71 0.75	1.00 1.02	30.1 30.9	26.6 27.0	- -
50	4.0	1.4	3.2	850 1000	24.5 25.3	1.73 1.75	18.6 19.3	96.7 93.4	4.15 4.22	3.0 2.7	850 1000	26.4 27.8	17.8 19.8	0.67 0.71	1.12 1.18	30.2 31.8	23.6 23.6	0.9 1.0
	6.0	3.1	7.2	850 1000	25.4 26.2	1.77 1.79	19.4 20.1	97.7 94.3	4.21 4.28	3.0 2.8	850 1000	27.0 28.4	18.0 20.0	0.67 0.71	1.05 1.11	30.6 32.2	25.6 25.7	0.9 0.9
	8.0	4.9	11.4	850 1000	26.0 26.8	1.79 1.81	19.9 20.6	98.3 94.8	4.26 4.34	3.1 2.9	850 1000	27.2 28.7	19.3 21.4	0.71 0.75	1.03 1.08	30.8 32.4	26.5 26.6	0.8 0.9
60	4.0	1.3	3.1	850 1000	26.9 27.7	1.75 1.77	20.9 21.7	99.3 95.7	4.49 4.60	3.2 3.0	850 1000	26.0 27.3	18.2 20.3	0.70 0.74	1.27 1.33	30.4 31.9	20.4 20.5	1.3 1.4
	6.0	3.0	6.9	850 1000	28.1 29.0	1.80 1.81	21.9 22.8	100.6 96.8	4.56 4.68	3.3 3.1	850 1000	26.7 27.9	18.4 20.5	0.69 0.73	1.21 1.26	30.8 32.2	22.0 22.1	1.2 1.3
	8.0	4.8	11.0	850 1000	28.8 29.7	1.82 1.83	22.5 23.5	101.3 97.5	4.62 4.76	3.4 3.2	850 1000	26.9 28.3	19.4 21.6	0.72 0.76	1.18 1.24	31.0 32.5	22.8 22.9	1.1 1.2
70	4.0	1.3	3.0	850 1000	29.2 30.7	1.78 1.84	23.2 24.4	101.8 98.4	4.82 4.89	3.6 3.3	850 1000	25.7 27.5	18.6 21.9	0.72 0.80	1.43 1.53	30.6 32.3	17.9 18.0	1.7 1.8
	6.0	2.9	6.7	850 1000	30.7 31.7	1.84 1.84	24.5 25.5	103.5 99.4	4.91 5.07	3.7 3.4	850 1000	26.3 27.5	18.8 20.9	0.72 0.76	1.37 1.42	31.0 32.5	19.2 19.4	1.6 1.7
	8.0	4.6	10.6	850 1000	31.5 32.6	1.86 1.85	25.2 26.3	104.3 100.2	4.97 5.16	3.8 3.5	850 1000	26.6 27.8	19.6 21.7	0.74 0.78	1.34 1.39	31.2 32.7	19.9 20.0	1.5 1.7
80	4.0	1.3	2.9	850 1000	31.5 32.6	1.80 1.79	25.4 26.5	104.4 100.2	5.13 5.35	4.1 3.8	850 1000	24.6 25.5	18.2 20.2	0.74 0.79	1.65 1.70	30.2 31.3	14.8 15.0	2.3 2.5
	6.0	2.8	6.5	850 1000	33.4 34.5	1.87 1.86	27.0 28.2	106.3 101.9	5.22 5.45	4.3 3.9	850 1000	25.2 26.2	18.4 20.4	0.73 0.78	1.60 1.64	30.7 31.9	15.8 16.0	2.4 2.0
	8.0	4.4	10.3	850 1000	34.3 35.5	1.90 1.87	27.8 29.1	107.4 102.9	5.30 5.56	4.4 4.1	850 1000	25.5 26.6	18.9 20.9	0.74 0.79	1.56 1.61	30.8 32.0	16.3 16.5	2.2 3.2
90	4.0	1.2	2.8	850 1000	33.9 35.1	1.83 1.80	27.6 28.9	106.9 102.5	5.43 5.71	4.7 4.4	850 1000	23.4 24.3	17.8 19.7	0.76 0.81	1.88 1.92	29.8 30.8	12.5 12.6	3.4 3.0
	6.0	2.7	6.2	850 1000	36.0 37.3	1.91 1.88	29.5 30.9	109.2 104.5	5.52 5.82	4.9 4.5	850 1000	24.1 25.0	18.0 19.9	0.75 0.80	1.82 1.87	30.3 31.4	13.2 13.4	3.2 2.8
	8.0	4.3	9.9	850 1000	37.1 38.4	1.94 1.89	30.5 32.0	110.4 105.6	5.61 5.95	5.0 4.7	850 1000	26.1 25.3	20.9 20.1	0.80 0.79	1.71 1.83	31.9 31.5	15.3 13.8	3.1 3.1
100	4.0	1.2	2.7	Operation not recommended							Operation not recommended							
	6.0	2.6	6.0															
	8.0	4.1	9.5	850 1000	23.3 24.1	18.5 20.6	0.79 0.85	2.03 2.07	30.3 31.1	11.5 11.7	850 1000	23.6 24.4	18.5 20.5	0.78 0.84	2.00 2.03	30.4 31.3	11.8 12.0	3.5 3.9
110	4.0	1.1	2.6	Operation not recommended							Operation not recommended							
	6.0	2.5	5.8															
	8.0	4.0	9.2	850 1000	22.6 23.2	19.1 21.2	0.85 0.92	2.25 2.26	30.2 30.9	10.0 10.2	850 1000	22.8 23.4	18.8 20.8	0.83 0.89	2.21 2.23	30.3 31.0	10.3 10.5	4.6 5.1
120	4.0	1.1	2.5	Operation not recommended							Operation not recommended							
	6.0	2.4	5.6															
	8.0	3.8	8.8	850 1000	19.8 20.2	16.9 18.4	0.86 0.91	2.65 2.71	28.8 29.4	7.5 7.4	850 1000	20.0 20.4	16.9 18.4	0.85 0.90	2.56 2.64	28.7 29.4	7.8 7.7	5.5 6.1

Performance capacities shown in thousands of Btuh.

6/10/24

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Contractor: _____ P.O.: _____

Engineer: _____

Project Name: _____ Unit Tag: _____



Performance Data cont.

048 - Dual Capacity with 5-Speed ECM High Speed (1700 cfm)

EWT °F	Flow gpm	WPD		HEATING - EAT 70°F							COOLING - EAT 80/67 °F							
		PSI	FT	Airflow cfm	HC kBtuh	Power kW	HE kBtuh	LAT °F	COP	HWC kBtuh	Airflow cfm	TC kBtuh	SC kBtuh	S/T Ratio	Power kW	HR kBtuh	EER	HWC kBtuh
20	6.0	7.0	16.2	Operation not recommended							Operation not recommended							
	9.0	9.7	22.4															
	12.0	12.4	28.7	1400 1700	35.2 33.4	2.95 3.05	25.2 23.0	93.3 88.2	3.50 3.21	4.7 4.2								
30	6.0	6.8	15.8	Operation not recommended							Operation not recommended							
	9.0	9.4	21.8															
	12.0	12.0	27.8	1400 1700	34.6 35.6	2.99 3.08	24.4 25.1	92.9 89.4	3.39 3.39	4.9 4.5	1400 1700	45.5 46.2	26.1 28.5	0.57 0.62	1.86 1.95	51.8 52.9	24.5 23.6	- -
40	6.0	6.6	15.3	Operation not recommended							Operation not recommended							
	9.0	9.1	21.1															
	12.0	11.7	27.0	1400 1700	41.6 43.0	3.28 3.36	30.4 31.5	97.5 93.4	3.71 3.75	5.8 5.3	1400 1700	49.7 50.9	30.6 33.4	0.61 0.66	2.12 2.22	57.0 58.4	23.5 23.0	- -
50	6.0	6.4	14.8	1400 1700	45.4 46.7	3.44 3.49	33.6 34.8	100.0 95.5	3.86 3.93	6.1 5.6	1400 1700	50.6 53.2	31.8 35.4	0.63 0.67	2.63 2.77	59.5 62.7	19.2 19.2	2.8 2.9
	9.0	8.9	20.5	1400 1700	47.0 48.5	3.52 3.57	35.0 36.4	101.1 96.4	3.92 3.99	6.3 5.8	1400 1700	51.6 54.3	32.2 35.8	0.62 0.66	2.48 2.60	60.1 63.2	20.8 20.9	2.6 2.8
	12.0	11.3	26.2	1400 1700	48.1 49.6	3.55 3.60	36.0 37.3	101.8 97.0	3.97 4.04	6.5 5.9	1400 1700	52.1 54.9	34.4 38.2	0.66 0.70	2.42 2.54	60.4 63.6	21.6 21.6	2.4 2.7
60	6.0	6.2	14.3	1400 1700	47.3 48.9	3.37 3.40	35.8 37.3	101.3 96.6	4.11 4.22	6.9 6.4	1400 1700	49.2 51.6	32.7 36.3	0.66 0.70	2.85 2.98	58.9 61.7	17.3 17.3	3.2 3.5
	9.0	8.6	19.8	1400 1700	49.5 51.1	3.47 3.49	37.6 39.2	102.7 97.8	4.18 4.29	7.1 6.6	1400 1700	50.4 52.7	33.1 36.7	0.66 0.70	2.71 2.82	59.6 62.4	18.6 18.7	3.1 3.3
	12.0	11.0	25.3	1400 1700	50.7 52.4	3.51 3.52	38.7 40.3	103.5 98.5	4.24 4.36	7.3 6.7	1400 1700	50.8 53.4	34.8 38.7	0.69 0.72	2.64 2.76	59.9 62.8	19.3 19.3	2.8 3.2
70	6.0	6.0	13.9	1400 1700	49.4 51.9	3.30 3.37	38.1 40.4	102.7 98.3	4.38 4.51	7.9 7.3	1400 1700	47.8 50.9	33.5 39.0	0.70 0.77	3.07 3.24	58.3 61.5	17.5 15.7	4.0 4.3
	9.0	8.3	19.2	1400 1700	52.0 53.6	3.41 3.41	40.3 42.0	104.4 99.2	4.46 4.61	8.1 7.5	1400 1700	49.1 51.2	33.9 37.6	0.69 0.73	2.94 3.04	59.1 61.8	16.7 16.8	3.8 4.1
	12.0	10.6	24.5	1400 1700	53.3 55.1	3.45 3.44	41.5 43.4	105.2 100.0	4.52 4.69	8.4 7.7	1400 1700	49.6 51.8	35.3 39.1	0.71 0.75	2.86 2.98	59.3 62.0	17.3 17.4	3.5 3.9
80	6.0	5.8	13.4	1400 1700	51.6 53.4	3.37 3.35	40.1 42.0	104.1 99.1	4.48 4.68	8.7 8.1	1400 1700	45.3 47.1	33.2 36.9	0.73 0.78	3.38 3.49	56.8 59.0	13.4 13.5	5.2 5.5
	9.0	8.0	18.5	1400 1700	54.6 56.5	3.51 3.47	42.6 44.6	106.1 100.8	4.56 4.76	9.0 8.3	1400 1700	46.5 48.4	33.6 37.3	0.72 0.77	3.27 3.36	57.7 59.9	14.2 14.4	4.8 5.2
	12.0	10.2	23.7	1400 1700	56.2 58.1	3.55 3.50	44.1 46.2	107.2 101.6	4.63 4.87	9.3 8.6	1400 1700	47.0 49.0	34.4 38.2	0.73 0.78	3.20 3.30	57.9 60.2	14.7 14.9	4.5 5.0
90	6.0	5.6	12.9	1400 1700	53.9 55.8	3.44 3.39	42.1 44.2	105.6 100.4	4.59 4.82	9.7 9.0	1400 1700	42.7 44.2	32.9 36.5	0.77 0.83	3.70 3.79	55.3 57.1	11.5 11.7	6.4 6.8
	9.0	7.7	17.9	1400 1700	57.3 59.3	3.60 3.53	45.0 47.2	107.9 102.3	4.66 4.92	10.0 9.3	1400 1700	44.0 45.6	33.3 36.9	0.76 0.81	3.59 3.69	56.2 58.2	12.2 12.4	6.0 6.5
	12.0	9.9	22.8	1400 1700	59.1 61.1	3.65 3.56	46.6 49.0	109.1 103.3	4.74 5.03	10.3 9.6	1400 1700	45.2 46.1	33.3 37.2	0.74 0.81	3.20 3.61	56.1 58.4	14.1 12.8	5.6 6.2
100	6.0	5.4	12.5	Operation not recommended							Operation not recommended							
	9.0	7.5	17.2															
	12.0	9.5	22.0	1400 1700	41.2 42.6	32.1 35.6	0.78 0.84	3.78 3.84	54.1 55.7	10.9 11.1	7.6 8.2							
110	6.0	5.2	12.0	Operation not recommended							Operation not recommended							
	9.0	7.2	16.6															
	12.0	9.2	21.2	1400 1700	41.7 39.9	32.0 33.6	0.77 0.84	3.72 3.94	54.3 55.9	11.2 11.4	7.1 7.8							
120	6.0	5.0	11.5	Operation not recommended							Operation not recommended							
	9.0	6.9	15.9															
	12.0	8.8	20.3	1400 1700	37.8 38.4	31.6 34.3	0.83 0.88	4.64 4.79	53.9 55.2	8.2 8.1	10.6 11.7							

Contractor: _____ P.O.: _____

Engineer: _____

Project Name: _____ Unit Tag: _____



Performance Data cont.

048 - Dual Capacity with 5-Speed ECM Low Speed (1250 cfm)

EWT °F	Flow gpm	WPD		HEATING - EAT 70°F							COOLING - EAT 80/67 °F							
		PSI	FT	Airflow cfm	HC kBtuh	Power kW	HE kBtuh	LAT °F	COP	HWC kBtuh	Airflow cfm	TC kBtuh	SC kBtuh	S/T Ratio	Power kW	HR kBtuh	EER	HWC kBtuh
20	5.0	2.5	5.7	Operation not recommended							Operation not recommended							
	8.0	6.4	14.9															
	11.0	10.4	24.1	1000 1250	23.9 22.1	2.36 2.22	15.8 14.5	92.1 86.4	2.97 2.92	4.4 4.0								
30	5.0	2.4	5.5	Operation not recommended							Operation not recommended							
	8.0	6.2	14.4															
	11.0	10.1	23.4	1000 1250	27.0 25.0	2.25 2.12	19.3 17.8	95.0 88.5	3.52 3.46	4.5 4.1	1000 1250	33.1 33.9	25.0 27.3	0.75 0.81	1.04 1.09	36.6 37.6	31.9 31.1	- -
40	5.0	2.3	5.3	Operation not recommended							Operation not recommended							
	8.0	6.1	14.0															
	11.0	9.8	22.7	1000 1250	28.9 29.9	2.17 2.22	21.5 22.3	96.8 92.1	3.90 3.96	4.7 4.3	1000 1250	35.7 36.5	25.2 27.6	0.71 0.76	1.15 1.20	39.6 40.5	31.1 30.4	- -
50	5.0	2.2	5.2	1000 1250	31.2 32.2	2.23 2.26	23.6 24.5	98.9 93.8	4.10 4.17	4.8 4.5	1000 1250	37.0 38.0	24.3 26.9	0.66 0.71	1.33 1.35	41.5 42.6	27.8 28.2	1.5 1.6
	8.0	5.9	13.6	1000 1250	32.3 33.3	2.23 2.26	24.7 25.6	99.9 94.6	4.24 4.32	5.0 4.6	1000 1250	37.3 38.4	24.5 27.1	0.66 0.71	1.30 1.32	41.8 42.9	28.8 29.0	1.4 1.6
	11.0	9.5	22.0	1000 1250	33.8 34.8	2.28 2.31	26.0 26.9	101.3 95.8	4.34 4.42	5.1 4.7	1000 1250	37.9 39.0	25.1 27.8	0.66 0.71	1.29 1.31	42.3 43.5	29.5 29.8	1.3 1.5
60	5.0	2.2	5.0	1000 1250	33.4 34.2	2.18 2.19	26.0 26.7	100.9 95.3	4.49 4.57	5.3 4.9	1000 1250	35.7 36.7	24.5 27.1	0.69 0.74	1.53 1.56	41.0 42.0	23.3 23.5	2.1 2.3
	8.0	5.7	13.1	1000 1250	34.7 35.5	2.18 2.19	27.3 28.1	102.2 96.3	4.68 4.76	5.4 5.0	1000 1250	36.0 37.0	24.6 27.3	0.68 0.74	1.49 1.52	41.1 42.2	24.1 24.3	2.0 2.2
	11.0	9.2	21.3	1000 1250	35.9 36.8	2.22 2.24	28.4 29.1	103.3 97.2	4.74 4.82	5.6 5.1	1000 1250	36.6 37.7	25.3 28.0	0.69 0.74	1.48 1.51	41.7 42.8	24.7 24.9	1.9 2.1
70	5.0	2.1	4.9	1000 1250	35.5 36.6	2.13 2.17	28.3 29.2	102.9 97.1	4.90 4.94	5.8 5.4	1000 1250	34.4 35.4	24.6 27.8	0.71 0.79	1.74 1.90	40.4 41.6	19.8 18.6	3.0 3.1
	8.0	5.5	12.7	1000 1250	37.1 37.8	2.12 2.12	29.8 30.5	104.3 98.0	5.13 5.23	6.0 5.6	1000 1250	34.7 35.7	24.8 27.4	0.71 0.77	1.69 1.73	40.5 41.9	20.5 20.7	2.8 3.0
	11.0	8.9	20.6	1000 1250	41.4 38.7	2.33 2.16	33.5 31.3	108.3 98.7	5.21 5.25	6.2 5.7	1000 1250	35.3 36.3	25.4 28.1	0.72 0.77	1.68 1.71	41.0 42.1	21.1 21.2	2.6 2.8
80	5.0	2.0	4.7	1000 1250	38.6 39.1	2.19 2.18	31.1 31.7	105.7 99.0	5.16 5.26	6.6 6.1	1000 1250	33.1 34.0	24.2 26.8	0.73 0.79	2.01 2.05	40.0 41.0	16.5 16.6	4.0 4.3
	8.0	5.3	12.3	1000 1250	40.5 40.9	2.18 2.16	33.0 33.6	107.5 100.3	5.44 5.55	6.8 6.3	1000 1250	33.4 34.3	24.3 26.9	0.73 0.78	1.96 2.00	40.1 41.2	17.0 17.2	3.7 4.1
	11.0	8.6	19.9	1000 1250	41.0 41.5	2.22 2.21	33.4 33.9	108.0 100.7	5.40 5.51	7.0 6.5	1000 1250	34.0 34.9	24.9 27.6	0.73 0.79	1.94 1.98	40.6 41.7	17.5 17.6	3.5 3.9
90	5.0	2.0	4.5	1000 1250	41.7 42.0	2.26 2.23	33.9 34.4	108.6 101.1	5.40 5.51	7.5 7.0	1000 1250	31.8 32.7	23.7 26.3	0.75 0.80	2.29 2.33	39.6 40.6	13.9 14.0	5.4 5.7
	8.0	5.1	11.8	1000 1250	43.8 44.1	2.24 2.21	36.2 36.5	110.6 102.7	5.73 5.85	7.8 7.2	1000 1250	32.1 33.0	23.9 26.4	0.74 0.80	2.23 2.27	39.7 40.7	14.4 14.5	5.0 5.5
	11.0	8.3	19.2	1000 1250	44.0 44.2	2.29 2.25	36.2 36.5	110.7 102.7	5.64 5.76	8.0 7.4	1000 1250	34.8 33.5	27.3 27.1	0.78 0.81	2.38 2.25	42.9 41.2	14.6 14.9	4.7 5.2
100	5.0	1.9	4.4	Operation not recommended							Operation not recommended							
	8.0	4.9	11.4															
	11.0	8.0	18.5	1000 1250	30.3 31.2	24.4 27.1	0.81 0.87	2.68 2.73	39.5 40.5	11.3 11.4	1000 1250	30.8 31.7	25.1 27.8	0.81 0.88	2.66 2.71	39.9 40.9	11.6 11.7	6.0 6.6
110	5.0	1.8	4.2	Operation not recommended							Operation not recommended							
	8.0	4.8	11.0															
	11.0	7.7	17.8	1000 1250	28.6 29.4	25.0 27.7	0.87 0.94	3.14 3.20	39.3 40.3	9.1 9.2	1000 1250	29.1 29.9	25.7 28.4	0.88 0.95	3.11 3.17	39.7 40.7	9.4 9.4	7.9 8.7
120	5.0	1.7	4.0	Operation not recommended							Operation not recommended							
	8.0	4.6	10.5															
	11.0	7.4	17.1	1000 1250	24.8 25.3	21.8 23.7	0.88 0.94	3.33 3.41	36.2 36.9	7.5 7.4	1000 1250	25.1 25.6	21.8 23.7	0.87 0.93	3.22 3.32	36.0 36.9	7.8 7.7	9.7 10.8

Performance capacities shown in thousands of Btuh.

6/10/24

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Engineer: _____

Project Name: _____ Unit Tag: _____



Performance Data cont.

060 - Dual Capacity with 5-Speed ECM High Speed (1800 cfm)

EWT °F	Flow gpm	WPD		HEATING - EAT 70°F							COOLING - EAT 80/67 °F							
		PSI	FT	Airflow cfm	HC kBtu/h	Power kW	HE kBtu/h	LAT °F	COP	HWC kBtu/h	Airflow cfm	TC kBtu/h	SC kBtu/h	S/T Ratio	Power kW	HR kBtu/h	EER	HWC kBtu/h
20	8.0	7.5	17.3	Operation not recommended							Operation not recommended							
	12.0	11.9	27.6															
	16.0	16.4	37.9	1500 1800	36.2 37.5	3.32 3.47	24.8 25.7	92.3 89.3	3.19 3.17	5.2 4.7								
30	8.0	7.3	16.8	Operation not recommended							Operation not recommended							
	12.0	11.6	26.8															
	16.0	15.9	36.8	1500 1800	48.9 50.7	4.19 4.38	34.6 35.8	100.2 96.1	3.42 3.39	5.8 5.2								
40	8.0	7.1	16.3	Operation not recommended							Operation not recommended							
	12.0	11.2	26.0															
	16.0	15.4	35.7	1500 1800	54.1 56.0	4.24 4.33	39.7 41.2	103.4 98.8	3.74 3.79	6.6 6.0								
50	8.0	6.8	15.8	1500 1800	54.9 56.7	4.12 4.18	40.9 42.4	103.9 99.1	3.91 3.97	6.9 6.4	1500 1800	58.9 60.5	38.1 42.2	0.65 0.70	3.19 3.05	69.8 71.0	18.5 23.3	3.6 3.8
	12.0	10.9	25.2	1500 1800	56.9 58.6	4.12 4.18	42.8 44.3	105.1 100.1	4.04 4.11	7.2 6.6	1500 1800	59.4 61.1	38.3 42.4	0.64 0.69	3.11 3.17	70.0 71.9	19.1 19.3	3.3 3.6
	16.0	15.0	34.6	1500 1800	59.5 61.3	4.22 4.27	45.1 46.7	106.8 101.5	4.14 4.21	7.4 6.8	1500 1800	60.4 62.1	39.3 43.5	0.65 0.70	3.08 3.14	70.9 72.8	19.6 19.8	3.1 3.4
60	8.0	6.6	15.3	1500 1800	62.3 63.9	4.53 4.56	46.9 48.3	108.5 102.9	4.03 4.10	7.8 7.2	1500 1800	57.8 59.4	37.7 41.7	0.65 0.70	3.44 3.51	69.6 71.4	16.8 17.0	4.4 4.6
	12.0	10.5	24.4	1500 1800	64.8 66.4	4.52 4.55	49.4 50.8	110.0 104.1	4.20 4.28	8.1 7.4	1500 1800	58.3 60.0	37.9 42.0	0.65 0.70	3.35 3.42	69.8 71.6	17.4 17.6	4.1 4.4
	16.0	14.5	33.5	1500 1800	67.1 68.6	4.62 4.65	51.3 52.8	111.4 105.3	4.25 4.33	8.5 7.6	1500 1800	59.3 61.0	38.9 43.1	0.66 0.71	3.32 3.39	70.6 72.5	17.9 18.0	3.8 4.2
70	8.0	6.4	14.8	1500 1800	69.7 71.2	4.94 4.87	52.8 54.6	113.0 106.6	4.13 4.28	8.9 8.2	1500 1800	56.7 57.9	37.3 41.1	0.66 0.71	3.69 3.94	69.3 71.3	15.4 14.7	5.4 5.7
	12.0	10.2	23.6	1500 1800	72.7 74.1	4.92 4.92	55.9 57.3	114.9 108.1	4.33 4.41	9.2 8.4	1500 1800	57.2 58.8	37.5 41.5	0.66 0.71	3.59 3.66	69.5 71.5	15.9 16.1	5.0 5.4
	16.0	14.0	32.4	1500 1800	74.6 75.9	5.03 5.02	57.4 58.8	116.1 109.0	4.35 4.43	9.5 8.7	1500 1800	58.2 59.8	38.5 42.6	0.66 0.71	3.56 3.63	70.3 72.2	16.3 16.5	4.7 5.2
80	8.0	6.2	14.3	1500 1800	76.6 77.7	5.15 5.12	59.1 60.2	117.3 110.0	4.36 4.44	9.8 9.1	1500 1800	55.3 56.8	37.1 41.1	0.67 0.72	4.08 4.16	69.2 71.0	13.5 13.6	7.0 7.4
	12.0	9.9	22.8	1500 1800	80.3 81.3	5.12 5.08	62.9 63.9	119.6 111.8	4.60 4.69	10.2 9.4	1500 1800	55.8 57.3	37.3 41.3	0.67 0.72	3.98 4.06	69.3 71.1	14.0 14.1	6.5 7.0
	16.0	13.5	31.3	1500 1800	81.5 82.3	5.23 5.18	63.6 64.6	120.3 112.3	4.57 4.66	10.5 9.6	1500 1800	56.7 58.3	38.3 42.4	0.68 0.73	3.94 4.02	70.1 72.0	14.4 14.5	6.0 6.7
90	8.0	6.0	13.8	1500 1800	83.6 84.3	5.37 5.30	65.3 66.2	121.6 113.4	4.57 4.66	10.9 10.0	1500 1800	53.8 55.3	36.9 40.8	0.69 0.74	4.48 4.57	69.1 70.9	12.0 12.1	9.1 9.7
	12.0	9.5	22.0	1500 1800	87.9 88.5	5.32 5.24	69.8 70.6	124.3 115.5	4.84 4.94	11.2 10.4	1500 1800	54.3 55.8	37.1 41.1	0.68 0.74	4.36 4.45	69.2 71.0	12.4 12.5	8.5 9.2
	16.0	13.0	30.1	1500 1800	88.3 88.7	5.43 5.34	69.8 70.5	124.5 115.6	4.77 4.87	11.6 10.8	1500 1800	58.1 56.7	39.4 42.1	0.68 0.74	4.17 4.41	72.3 71.7	13.9 12.9	7.9 8.8
100	8.0	5.7	13.3	Operation not recommended							Operation not recommended							
	12.0	9.2	21.2															
	16.0	12.6	29.1								1500 1800	52.3 53.8	36.9 40.8	0.70 0.76	4.81 4.90	68.7 70.5	10.9 11.0	10.2 11.0
110	8.0	5.5	12.8	Operation not recommended							Operation not recommended							
	12.0	8.8	20.4															
	16.0	12.1	28.0								1500 1800	51.2 52.6	37.6 41.6	0.73 0.79	5.20 5.30	68.9 70.7	9.8 9.9	12.2 13.5
120	8.0	5.3	12.3	Operation not recommended							Operation not recommended							
	12.0	8.5	19.6															
	16.0	11.6	26.9								1500 1800	46.9 47.7	36.1 39.2	0.77 0.82	5.89 6.04	67.0 68.4	8.0 7.9	15.6 16.3

Performance capacities shown in thousands of Btuh.

6/10/24

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Engineer: _____

Project Name: _____ Unit Tag: _____



Performance Data cont.

060 - Dual Capacity with 5-Speed ECM Low Speed (1500 cfm)

EWT °F	Flow gpm	WPD		HEATING - EAT 70°F							COOLING - EAT 80/67 °F							
		PSI	FT	Airflow cfm	HC kBtu/h	Power kW	HE kBtu/h	LAT °F	COP	HWC kBtu/h	Airflow cfm	TC kBtu/h	SC kBtu/h	S/T Ratio	Power kW	HR kBtu/h	EER	HWC kBtu/h
20	6.0	4.4	10.3	Operation not recommended							Operation not recommended							
	10.0	8.7	20.0															
	14.0	13.1	30.3	1250 1500	24.1 26.2	2.61 2.76	15.2 16.8	87.8 86.2	2.71 2.78	4.1 3.8								
30	6.0	4.3	10.0	Operation not recommended							Operation not recommended							
	10.0	8.4	19.4	1250 1500	30.9 32.2	2.91 2.99	21.0 22.0	92.9 89.9	3.12 3.16	4.1 3.7	1250 1500	39.6 40.3	32.4 35.4	0.82 0.88	1.65 1.74	45.3 46.2	24.0 23.2	- -
	14.0	12.7	29.4	1250 1500	31.5 34.3	2.89 3.06	21.6 23.9	93.3 91.2	3.19 3.29	4.2 3.8	1250 1500	39.8 40.8	32.4 35.4	0.81 0.87	1.60 1.68	45.3 46.5	24.9 24.3	- -
40	6.0	4.2	9.7	Operation not recommended							Operation not recommended							
	10.0	8.2	18.8	1250 1500	36.2 37.4	2.90 2.95	26.3 27.4	96.8 93.1	3.66 3.71	4.6 4.1	1250 1500	43.1 43.9	31.9 34.9	0.74 0.79	1.76 1.85	49.2 50.3	24.5 23.8	- -
	14.0	12.3	28.5	1250 1500	38.1 39.5	2.97 3.03	28.0 29.1	98.3 94.4	3.76 3.82	4.7 4.3	1250 1500	43.5 44.5	31.9 34.9	0.73 0.78	1.71 1.79	49.3 50.6	25.4 24.8	- -
50	6.0	4.1	9.4	1250 1500	40.0 41.2	2.89 2.93	30.1 31.2	99.6 95.4	4.06 4.13	4.8 4.4	1250 1500	45.6 46.9	30.0 33.3	0.66 0.71	1.98 1.74	52.4 52.8	23.0 32.5	1.9 2.0
	10.0	7.9	18.3	1250 1500	41.4 42.6	2.89 2.92	31.5 32.7	100.7 96.3	4.20 4.27	5.0 4.6	1250 1500	46.0 47.3	30.2 33.4	0.66 0.71	1.93 1.97	52.6 54.0	23.9 24.1	1.8 1.9
	14.0	12.0	27.6	1250 1500	43.3 44.6	2.95 2.99	33.2 34.4	102.1 97.5	4.30 4.37	5.2 4.8	1250 1500	46.8 48.1	31.0 34.3	0.66 0.71	1.91 1.95	53.3 54.8	24.5 24.7	1.6 1.8
60	6.0	3.9	9.1	1250 1500	44.1 45.2	3.04 3.06	33.7 34.7	102.6 97.9	4.25 4.32	5.6 5.0	1250 1500	44.4 45.6	30.3 33.5	0.68 0.73	2.17 2.21	51.8 53.2	20.5 20.6	2.6 2.8
	10.0	7.7	17.7	1250 1500	45.8 46.9	3.04 3.05	35.5 36.5	104.0 99.0	4.42 4.50	5.6 5.2	1250 1500	44.8 46.0	30.4 33.7	0.68 0.73	2.11 2.15	52.0 53.4	21.2 21.4	2.5 2.7
	14.0	11.6	26.8	1250 1500	47.4 48.5	3.11 3.12	36.8 37.9	105.1 99.9	4.48 4.56	5.8 5.3	1250 1500	45.5 46.8	31.2 34.6	0.69 0.74	2.09 2.14	52.7 54.1	21.7 21.9	2.3 2.5
70	6.0	3.8	8.8	1250 1500	48.1 48.8	3.20 3.21	37.2 37.8	105.6 100.1	4.41 4.46	6.2 5.7	1250 1500	43.2 44.5	30.5 33.9	0.71 0.76	2.36 2.67	51.2 52.7	18.3 16.7	3.7 3.9
	10.0	7.4	17.1	1250 1500	50.2 51.1	3.19 3.19	39.3 40.3	107.2 101.6	4.62 4.70	6.5 5.9	1250 1500	43.6 44.8	30.7 33.9	0.70 0.76	2.30 2.34	51.4 53.4	19.0 19.1	3.4 3.7
	14.0	11.2	25.9	1250 1500	51.5 52.4	3.26 3.25	40.4 41.3	108.2 102.3	4.64 4.73	6.7 6.1	1250 1500	44.3 45.5	31.4 34.8	0.71 0.76	2.28 2.32	52.0 5.6	19.5 19.6	3.2 3.5
80	6.0	3.7	8.5	1250 1500	53.6 54.4	3.25 3.23	42.5 43.3	109.7 103.6	4.83 4.93	6.9 6.4	1250 1500	41.3 42.4	29.7 32.9	0.72 0.78	2.71 2.76	50.5 51.8	15.2 15.4	5.1 5.4
	10.0	7.1	16.5	1250 1500	56.2 56.9	3.23 3.21	45.2 45.9	111.6 105.1	5.10 5.20	7.2 6.7	1250 1500	41.6 42.8	29.9 33.1	0.72 0.77	2.64 2.69	50.6 52.0	15.8 15.9	4.8 5.2
	14.0	10.8	25.0	1250 1500	57.0 57.6	3.30 3.27	45.8 46.4	112.2 105.6	5.06 5.16	7.4 6.8	1250 1500	42.3 43.5	30.7 34.0	0.72 0.78	2.61 2.67	51.2 52.6	16.2 16.3	4.4 4.9
90	6.0	3.5	8.2	1250 1500	59.2 59.7	3.31 3.27	47.9 48.5	113.8 106.8	5.25 5.35	7.8 7.2	1250 1500	39.4 40.5	29.0 32.1	0.74 0.79	3.06 3.12	49.8 51.1	12.9 13.0	6.8 7.2
	10.0	6.9	15.9	1250 1500	62.2 62.6	3.28 3.23	51.1 51.6	116.1 108.7	5.57 5.68	8.1 7.4	1250 1500	39.7 40.8	29.2 32.3	0.73 0.79	2.98 3.04	49.9 51.2	13.3 13.4	6.4 6.9
	14.0	10.4	24.1	1250 1500	62.5 62.8	3.34 3.29	51.1 51.6	116.3 108.8	5.48 5.59	8.3 7.8	1250 1500	40.6 41.5	30.6 33.1	0.75 0.80	2.88 3.01	50.4 51.8	14.1 13.8	5.9 6.6
100	6.0	3.4	7.9	Operation not recommended							Operation not recommended							
	10.0	6.6	15.4								1250 1500	36.9 37.9	28.5 31.5	0.77 0.83	3.38 3.45	48.4 49.6	10.9 11.0	8.3 8.9
	14.0	10.1	23.2								1250 1500	37.5 38.5	29.2 32.3	0.78 0.84	3.35 3.42	48.9 50.2	11.2 11.3	7.7 8.5
110	6.0	3.3	7.6	Operation not recommended							Operation not recommended							
	10.0	6.4	14.8								1250 1500	34.0 34.9	27.8 30.7	0.82 0.88	3.78 3.85	46.9 48.1	9.0 9.1	10.4 11.3
	14.0	9.7	22.4								1250 1500	34.5 35.5	28.5 31.5	0.82 0.89	3.75 3.82	47.3 48.5	9.2 9.3	9.7 10.7
120	6.0	3.2	7.3	Operation not recommended							Operation not recommended							
	10.0	6.1	14.2								1250 1500	31.3 31.9	27.3 29.6	0.87 0.93	4.32 4.43	46.1 47.0	7.3 7.2	12.6 13.6
	14.0	9.3	21.5								1250 1500	31.6 32.3	27.3 29.6	0.86 0.92	4.18 4.31	45.9 47.0	7.6 7.5	11.7 12.9

Performance capacities shown in thousands of Btuh.

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Contractor:_____ P.O.: _____

Engineer:_____

Project Name:_____ Unit Tag: _____



Performance Data cont.

072 - Dual Capacity with 5-Speed ECM High Speed (2300 cfm)

EWT °F	Flow gpm	WPD		HEATING - EAT 70°F							COOLING - EAT 80/67 °F							
		PSI	FT	Airflow cfm	HC kBtuh	Power kW	HE kBtuh	LAT °F	COP	HWC kBtuh	Airflow cfm	TC kBtuh	SC kBtuh	S/T Ratio	Power kW	HR kBtuh	EER	HWC kBtuh
20	12.0	4.0	9.1	Operation not recommended							Operation not recommended							
	15.0	5.9	13.5															
	18.0	8.1	18.7	1850 2300	43.8 45.6	4.24 4.42	29.3 30.5	91.9 88.4	3.03 3.02	7.9 7.1								
30	12.0	3.8	8.9	Operation not recommended							Operation not recommended							
	15.0	5.7	13.1															
	18.0	7.8	18.1	1850 2300	55.6 57.9	4.77 4.97	39.3 40.9	97.8 93.3	3.42 3.41	8.5 7.7	1850 2300	57.2 58.1	42.7 46.7	0.74 0.79	3.10 3.25	68.1 70.0	18.6 18.1	- -
40	12.0	3.7	8.6	Operation not recommended							Operation not recommended							
	15.0	5.5	12.7															
	18.0	7.6	17.6	1850 2300	63.6 65.7	4.89 4.99	47.0 48.6	101.8 96.4	3.82 3.86	9.5 8.6	1850 2300	62.1 63.2	43.2 47.1	0.70 0.74	3.44 3.61	73.8 75.6	18.0 17.5	- -
50	12.0	3.6	8.3	1850 2300	67.2 69.2	4.79 4.86	50.8 52.6	103.6 97.8	4.11 4.17	9.9 9.2	1850 2300	63.5 66.9	39.6 44.0	0.62 0.66	3.87 4.08	76.8 80.8	16.4 16.4	4.3 4.5
	15.0	5.3	12.3	1850 2300	69.6 71.8	4.90 4.97	52.9 54.9	104.8 98.9	4.16 4.24	10.2 9.4	1850 2300	64.9 68.2	40.1 44.5	0.62 0.65	3.65 3.83	77.4 81.3	17.8 17.8	4.0 4.3
	18.0	7.4	17.0	1850 2300	71.2 73.4	4.94 5.01	54.3 56.3	105.6 99.5	4.22 4.29	10.5 9.6	1850 2300	65.5 69.0	42.8 47.5	0.65 0.69	3.56 3.74	77.7 81.8	18.4 18.4	3.7 4.1
60	12.0	3.5	8.1	1850 2300	73.7 76.1	5.08 5.12	56.4 58.6	106.9 100.6	4.25 4.36	11.1 10.3	1850 2300	62.3 65.4	40.5 45.1	0.65 0.69	4.21 4.39	76.7 80.3	14.8 14.9	5.5 5.5
	15.0	5.2	11.9	1850 2300	77.0 79.5	5.23 5.26	59.2 61.6	108.6 102.0	4.32 4.43	11.5 10.6	1850 2300	63.8 66.8	41.0 45.5	0.64 0.68	4.00 4.16	77.4 81.0	16.0 16.1	4.9 5.3
	18.0	7.1	16.5	1850 2300	78.9 81.5	5.28 5.31	60.9 63.4	109.5 102.8	4.38 4.50	11.8 10.9	1850 2300	64.4 67.6	43.2 48.0	0.67 0.71	3.90 4.08	77.7 81.5	16.5 16.6	4.5 5.0
70	12.0	3.4	7.8	1850 2300	80.3 86.2	5.38 5.52	62.0 67.4	110.2 104.7	4.38 4.58	12.5 11.6	1850 2300	61.1 66.0	41.5 48.5	0.68 0.73	4.54 4.57	76.6 80.8	17.5 14.4	6.6 6.9
	15.0	5.0	11.6	1850 2300	84.5 87.2	5.56 5.56	65.5 68.3	112.3 105.1	4.46 4.60	12.9 11.9	1850 2300	62.7 65.4	42.0 46.6	0.67 0.71	4.35 4.50	77.5 81.2	14.4 14.5	6.1 6.6
	18.0	6.9	15.9	1850 2300	86.6 89.6	5.62 5.60	67.5 70.5	113.4 106.1	4.52 4.69	13.3 12.3	1850 2300	63.3 66.2	43.7 48.4	0.69 0.73	4.24 4.41	77.8 81.6	15.0 15.0	5.7 6.3
80	12.0	3.3	7.5	1850 2300	86.8 89.8	5.60 5.56	67.7 70.8	113.4 106.2	4.54 4.74	13.9 12.8	1850 2300	59.1 61.5	41.8 46.5	0.71 0.76	4.96 5.11	76.0 78.9	11.9 12.0	8.4 8.9
	15.0	4.8	11.2	1850 2300	91.8 94.9	5.82 5.77	71.9 75.2	115.9 108.2	4.62 4.82	14.3 13.2	1850 2300	60.8 63.2	42.4 47.0	0.70 0.74	4.78 4.92	77.1 80.0	12.7 12.8	7.8 8.4
	18.0	6.7	15.4	1850 2300	94.4 97.7	5.90 5.81	74.3 77.8	117.3 109.3	4.69 4.93	14.7 13.6	1850 2300	61.4 64.0	43.4 48.1	0.71 0.75	4.68 4.83	77.4 80.4	13.1 13.3	7.2 8.0
90	12.0	3.1	7.3	1850 2300	93.2 96.5	5.82 5.74	73.3 76.9	116.6 108.9	4.69 4.93	15.4 14.3	1850 2300	57.1 59.2	42.2 46.9	0.74 0.79	5.37 5.50	75.5 77.9	10.6 10.8	10.5 11.1
	15.0	4.7	10.8	1850 2300	99.1 102.6	6.09 5.98	78.3 82.2	119.6 111.3	4.77 5.03	15.9 14.7	1850 2300	58.8 61.0	42.8 47.4	0.73 0.78	5.22 5.35	76.6 79.3	11.3 11.4	9.8 10.6
	18.0	6.4	14.9	1850 2300	102.2 105.7	6.17 6.02	81.1 85.2	121.1 112.6	4.85 5.15	16.4 15.2	1850 2300	68.5 61.7	47.7 47.8	0.70 0.77	4.96 5.24	85.4 79.6	13.8 11.8	9.1 10.1
100	12.0	3.0	7.0	Operation not recommended							Operation not recommended							
	15.0	4.5	10.4															
	18.0	6.2	14.3	1850 2300	58.2 60.1	43.9 48.7	0.75 0.81	5.84 5.93	78.1 80.4	10.0 10.1	12.2 13.2	1850 2300	58.8 60.8	43.8 48.5	0.74 0.80	5.74 5.83	78.4 80.6	10.3 10.4
110	12.0	2.9	6.7	Operation not recommended							Operation not recommended							
	15.0	4.3	10.0															
	18.0	6.0	13.8	1850 2300	57.6 59.2	45.1 50.1	0.78 0.85	6.47 6.51	79.7 81.4	8.9 9.1	14.9 16.1	1850 2300	58.2 59.8	44.5 49.1	0.76 0.82	6.35 6.42	79.9 81.7	9.2 9.3
120	12.0	2.8	6.5	Operation not recommended							Operation not recommended							
	15.0	4.2	9.6															
	18.0	5.7	13.2	1850 2300	54.6 55.8	42.6 46.2	0.78 0.83	6.79 7.00	77.8 79.7	8.1 8.0	16.7 18.5	1850 2300	54.2 55.1	42.6 46.2	0.79 0.84	7.01 7.20	78.1 79.7	7.7 7.7

Performance capacities shown in thousands of Btuh.

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Contractor: _____ P.O.: _____

Engineer: _____

Project Name: _____ Unit Tag: _____



Performance Data cont.

072 - Dual Capacity with 5-Speed ECM Low Speed (1850 cfm)

EWT °F	Flow gpm	WPD		HEATING - EAT 70°F							COOLING - EAT 80/67 °F							
		PSI	FT	Airflow cfm	HC kBtu/h	Power kW	HE kBtu/h	LAT °F	COP	HWC kBtu/h	Airflow cfm	TC kBtu/h	SC kBtu/h	S/T Ratio	Power kW	HR kBtu/h	EER	HWC kBtu/h
20	10.0	2.9	6.8	Operation not recommended							Operation not recommended							
	13.0	4.9	11.4															
	16.0	7.0	16.2	1650 1850	33.9 34.8	3.44 3.48	22.1 22.9	89.0 87.4	2.88 2.93	5.9 5.3								
30	10.0	2.8	6.6	Operation not recommended							Operation not recommended							
	13.0	4.8	11.0	1650 1850	37.4 39.0	3.48 3.57	25.6 26.8	91.0 89.5	3.15 3.20	5.5 4.7	1650 1850	48.8 49.5	34.1 37.3	0.70 0.75	1.95 2.06	55.4 56.6	24.9 24.1	- -
	16.0	6.8	15.8	1650 1850	40.4 41.5	3.62 3.66	28.0 29.0	92.7 90.8	3.27 3.32	5.0 5.7	1650 1850	49.0 50.2	34.1 37.3	0.70 0.74	1.90 1.99	55.5 57.0	25.9 25.2	- -
40	10.0	2.8	6.4	Operation not recommended							Operation not recommended							
	13.0	4.6	10.7	1650 1850	44.0 45.6	3.54 3.61	31.9 33.2	94.7 92.8	3.64 3.70	6.5 5.9	1650 1850	51.3 52.3	35.5 38.7	0.69 0.74	2.10 2.20	58.5 59.8	24.5 23.8	- -
	16.0	6.6	15.3	1650 1850	46.4 48.0	3.63 3.70	34.0 35.4	96.0 94.0	3.75 3.80	6.7 6.1	1650 1850	51.7 52.9	35.5 38.7	0.69 0.73	2.04 2.13	58.7 60.2	25.4 24.8	- -
50	10.0	2.7	6.2	1650 1850	48.8 50.4	3.61 3.66	36.5 37.9	97.4 95.2	3.97 4.03	6.8 6.3	1650 1850	52.7 54.2	35.1 38.9	0.67 0.72	2.31 1.00	60.6 57.6	22.9 28.1	2.3 2.4
	13.0	4.5	10.4	1650 1850	50.6 52.1	3.61 3.66	38.2 39.6	98.4 96.1	4.10 4.17	7.0 6.4	1650 1850	53.2 54.7	35.3 39.1	0.66 0.71	2.25 2.29	60.9 62.5	23.7 23.9	2.1 2.3
	16.0	6.4	14.8	1650 1850	52.9 54.5	3.70 3.74	40.3 41.7	99.7 97.3	4.20 4.27	7.2 6.6	1650 1850	54.1 55.6	36.2 40.1	0.67 0.72	2.23 2.27	61.7 63.3	24.3 24.5	2.0 2.2
60	10.0	2.6	6.0	1650 1850	54.7 56.1	3.72 3.75	42.0 43.3	100.7 98.1	4.30 4.38	7.5 6.9	1650 1850	51.4 52.8	34.1 37.7	0.66 0.71	2.62 2.67	60.3 61.9	19.6 19.8	3.2 3.4
	13.0	4.3	10.0	1650 1850	56.9 58.2	3.72 3.74	44.2 45.5	101.9 99.1	4.49 4.56	7.7 7.1	1650 1850	51.8 53.3	34.3 37.9	0.66 0.71	2.55 2.60	60.5 62.2	20.3 20.5	3.0 3.2
	16.0	6.2	14.3	1650 1850	58.9 60.2	3.80 3.82	45.9 47.2	103.0 100.1	4.54 4.62	7.9 7.3	1650 1850	52.7 54.2	35.1 38.9	0.67 0.72	2.53 2.58	61.3 63.0	20.8 21.0	2.8 3.1
70	10.0	2.5	5.8	1650 1850	60.5 63.2	3.84 3.85	47.4 50.1	103.9 101.6	4.62 4.81	8.3 7.7	1650 1850	50.0 52.4	33.0 37.8	0.66 0.72	2.94 3.05	60.0 61.8	17.0 17.2	4.4 4.6
	13.0	4.2	9.7	1650 1850	63.1 64.3	3.82 3.82	50.1 51.3	105.4 102.2	4.84 4.93	8.5 7.9	1650 1850	50.4 51.8	33.2 36.8	0.66 0.71	2.86 2.92	60.2 62.6	17.6 17.8	4.1 4.4
	16.0	6.0	13.9	1650 1850	64.8 65.9	3.91 3.90	51.4 52.6	106.4 103.0	4.86 4.95	8.8 8.1	1650 1850	51.3 52.7	34.1 37.7	0.66 0.72	2.84 2.89	61.0 62.8	18.1 18.2	3.8 4.2
80	10.0	2.4	5.6	1650 1850	66.4 67.3	3.90 3.88	53.1 54.1	107.3 103.7	4.99 5.09	9.2 8.5	1650 1850	47.6 48.9	31.8 35.2	0.67 0.72	3.35 3.42	59.0 60.6	14.2 14.3	6.1 5.9
	13.0	4.1	9.4	1650 1850	69.6 70.4	3.87 3.85	56.4 57.3	109.1 105.2	5.26 5.37	9.5 8.8	1650 1850	48.0 49.3	32.0 35.4	0.67 0.72	3.27 3.33	59.1 60.7	14.7 14.8	5.2 5.6
	16.0	5.8	13.4	1650 1850	70.6 71.3	3.96 3.92	57.1 57.9	109.6 105.7	5.23 5.33	9.8 9.1	1650 1850	48.8 50.2	32.8 36.4	0.67 0.72	3.24 3.30	59.8 61.4	15.1 15.2	4.8 5.8
90	10.0	2.3	5.4	1650 1850	72.3 72.9	3.96 3.91	58.8 59.5	110.6 106.5	5.35 5.46	10.3 9.5	1650 1850	45.2 46.4	30.7 33.9	0.68 0.73	3.77 3.84	58.0 59.5	12.0 12.1	8.0 8.5
	13.0	3.9	9.0	1650 1850	76.0 76.5	3.93 3.87	62.6 63.3	112.7 108.3	5.68 5.79	10.6 9.8	1650 1850	45.6 46.8	30.8 34.1	0.68 0.73	3.67 3.74	58.1 59.6	12.4 12.5	7.5 8.1
	16.0	5.6	12.9	1650 1850	76.4 76.7	4.00 3.94	62.7 63.3	112.8 108.4	5.59 5.71	11.0 10.2	1650 1850	50.2 47.6	35.9 35.0	0.72 0.74	3.55 3.71	62.3 60.3	14.1 12.8	6.9 7.7
100	10.0	2.2	5.2	Operation not recommended							Operation not recommended							
	13.0	3.8	8.7								1650 1850	44.7 45.9	32.2 35.6	0.72 0.78	4.15 4.23	58.8 60.3	10.8 10.9	9.7 10.5
	16.0	5.4	12.5	1650 1850	45.4 46.7	33.0 36.6	0.73 0.78	4.11 4.19	59.4 60.9	11.0 11.1	9.0 10.0							
110	10.0	2.2	5.0	Operation not recommended							Operation not recommended							
	13.0	3.6	8.4								1650 1850	43.7 45.0	33.6 37.2	0.77 0.83	4.62 4.71	59.5 61.0	9.5 9.5	12.7 13.8
	16.0	5.2	12.0	1650 1850	44.5 45.7	34.4 38.1	0.77 0.83	4.58 4.67	60.1 61.6	9.7 9.8	11.8 13.1							
120	10.0	2.1	4.8	Operation not recommended							Operation not recommended							
	13.0	3.5	8.1								1650 1850	39.6 40.3	31.0 33.7	0.78 0.84	5.79 5.94	59.4 60.6	6.8 6.8	15.7 16.7
	16.0	5.0	11.5	1650 1850	39.9 40.8	31.0 33.7	0.78 0.83	5.60 5.78	59.1 60.5	7.1 7.1	14.4 15.9							

Performance capacities shown in thousands of Btu/h.

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Contractor: _____ P.O.: _____

Engineer: _____

Project Name: _____ Unit Tag: _____



Revision Guide

Pages:	Description:	Date:	By:
	Guide Creation	July 25, 2024	SW
4-5	Update Dimensional Data	April 24, 2025	SW