



Load Short Form

Entire House
DL Williams Heating & Cooling L.L.C.

Job: 1
Date: Nov 22, 2021
By: DL Williams Heating & C...
Plan: 1

PO Box 2156, Lake City, FL 32056 Phone: 386-754-1987 Email: williamscoolingllc@gmail.com

Project Information

For: Gerke Residence, Mike Todd Construction
Lake City, FL 32055

Design Information

	Htg	Clg	Infiltration	Simplified Average
Outside db (°F)	33	92	Method	0
Inside db (°F)	68	75	Construction quality	
Design TD (°F)	35	17	Fireplaces	
Daily range	-	M		
Inside humidity (%)	30	50		
Moisture difference (gr/lb)	8	44		

HEATING EQUIPMENT

Make: Generic
Trade:
Model: SEER 14.0, HSPF 8.1
AHRI ref:
Efficiency: 8.1 HSPF
Heating input:
Heating output: 56716 Btuh @ 47°F
Temperature rise: 27 °F
Actual air flow: 1900 cfm
Air flow factor: 0.046 cfm/Btuh
Static pressure: 0.50 in H2O
Space thermostat:
Capacity balance point = 21 °F

COOLING EQUIPMENT

Make: Generic
Trade:
Cond: SEER 14.0, HSPF 8.1
Coil:
AHRI ref:
Efficiency: 12.2 EER, 14 SEER
Sensible cooling: 39900 Btuh
Latent cooling: 17100 Btuh
Total cooling: 57000 Btuh
Actual air flow: 1900 cfm
Air flow factor: 0.045 cfm/Btuh
Static pressure: 0.50 in H2O
Load sensible heat ratio: 0.87

Backup:
Input = 12 kW, Output = 40027 Btuh, 100 AFUE

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
living	957	13593	17089	622	772
kitchen	493	9669	10236	442	462
mbed	416	7819	6415	358	290
mwic	84	91	71	4	3
utility	84	114	814	5	37
hall	60	0	0	0	0
br2	285	3748	3631	171	164
wic2	56	2072	680	95	31
bath2	84	1700	577	78	26
bath3	35	47	37	2	2
mbath	160	1536	1327	70	60
lav	36	1133	1177	52	53

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

Entire House	2750	41523	42055	1900	1900
Other equip loads		0	0		
Equip. @ 0.97 RSM			40877		
Latent cooling			6018		
TOTALS	2750	41523	46895	1900	1900

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.





Manual S Compliance Report

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Cooling Equipment

Design Conditions

Outdoor design DB:	92.2°F	Sensible gain:	42055 Btuh	Entering coil DB:	77.6°F
Outdoor design WB:	75.8°F	Latent gain:	6018 Btuh	Entering coil WB:	63.7°F
Indoor design DB:	75.0°F	Total gain:	48073 Btuh		
Indoor RH:	50%	Estimated airflow:	1900 cfm		

Manufacturer's Performance Data at Actual Design Conditions

Equipment type:	Split ASHP		
Manufacturer:	Generic	Model:	SEER 14.0, HSPF 8.1
Actual airflow:	1900 cfm		
Sensible capacity:	39900 Btuh		95% of load
Latent capacity:	17100 Btuh		284% of load
Total capacity:	57000 Btuh		119% of load SHR: 70%

Heating Equipment

Design Conditions

Outdoor design DB:	33.2°F	Heat loss:	41523 Btuh	Entering coil DB:	66.8°F
Indoor design DB:	68.0°F				

Manufacturer's Performance Data at Actual Design Conditions

Equipment type:	Split ASHP				
Manufacturer:	Generic	Model:	SEER 14.0, HSPF 8.1		
Actual airflow:	1900 cfm				
Output capacity:	56716 Btuh		137% of load	Capacity balance:	21 °F
Supplemental heat required:	0 Btuh			Economic balance:	-99 °F

Backup equipment type:	Elec strip		
Manufacturer:		Model:	
Actual airflow:	1900 cfm		
Output capacity:	11.7 kW	96% of load	Temp. rise: 50 °F

Meets all requirements of ACCA Manual S.